



Your Reliable Power Partner

LED Power Supply LED Driver

2012
April



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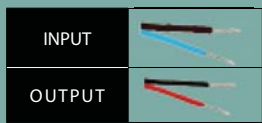


AP series

12~35W Single Output Class 2 Power Unit

► Features

- Universal AC input / Full range
- Fully isolated plastic case
- Protections: Short circuit / Overload(APV only) / Over voltage
- Constant voltage design (C.V. mode) for APV series
- Constant current design (C.C. mode) for APC series
- IP30 design
- Withstand 300VAC surge input for 5 seconds (APV/C-25/35)
- Class 2 power unit / Pass LPS
- Isolation class II, no FG
- Cooling by free air convection
- 100% full load burn-in test
- Low cost, high reliability
- Suitable for LED lighting and moving sign applications
- 2 years warranty



| | | |
|--------------------------------|---|---|
| AC input voltage range | 90~264VAC ; 127~370VDC | |
| AC inrush current (max.) | Cold start, 70A at 230VAC | |
| Overload protection (APV only) | Range | >105% rated output current |
| | Type | Hiccup up mode, auto-recovery |
| Over voltage protection | 110%~145% rated output voltage | |
| Withstand voltage | I/P-O/P: 3.75kVAC | I/P-O/P: 3kVAC |
| Working temperature | -30~+70°C (refer to output derating curve) | |
| Vibration | 10~500Hz, 2G 10 minutes /1 cycle, period for 60 minutes each along X, Y, Z axes | |
| Safety standards | UL8750 approved; Design refer to TUV EN60950-1 | Design refer to TUV EN60950-1, UL8750 |
| EMC standards | EN55015, EN61000-3-2 class A, EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547 | EN55022 class B, EN61000-3-2 class A, EN61000-3-3, EN61000-4-2,3,4,5,6,8,11 |
| Connection | Input | UL rated, 18AWGx2C (15cm) |
| | Output | UL rated, 20AWGx2C (15cm) |
| Dimension (LxWxH)(mm) | 77x 40x 29 | 84x 57x 29.5 |

APV-12 Series (C.V. mode)



| Model No. | Output | Tol. | R&N | Effi. |
|-----------|-------------|------|-------|-------|
| APV-12-5 | 5V, 0~2.0A | ±5% | 100mV | 76% |
| APV-12-12 | 12V, 0~1.0A | ±5% | 120mV | 82% |
| APV-12-15 | 15V, 0~0.8A | ±5% | 120mV | 82% |
| APV-12-24 | 24V, 0~0.5A | ±5% | 150mV | 84% |

APC-12 Series (C.C. mode)



| Model No. | Output | Io Tol. | R&N | Effi. |
|------------|--------------|---------|-------|-------|
| APC-12-350 | 9~36V, 350mA | ±8% | 300mV | 82% |
| APC-12-700 | 9~18V, 700mA | ±8% | 250mV | 80% |

APV-16 Series (C.V. mode)



| Model No. | Output | Tol. | R&N | Effi. |
|-----------|--------------|------|-------|-------|
| APV-16-5 | 5V, 0~2.60A | ±5% | 100mV | 76% |
| APV-16-12 | 12V, 0~1.25A | ±5% | 120mV | 80% |
| APV-16-15 | 15V, 0~1.00A | ±5% | 120mV | 81% |
| APV-16-24 | 24V, 0~0.67A | ±5% | 150mV | 83% |

APC-16 Series (C.C. mode)



| Model No. | Output | Io Tol. | R&N | Effi. |
|------------|---------------|---------|-------|-------|
| APC-16-350 | 12~48V, 350mA | ±8% | 300mV | 84% |
| APC-16-700 | 9~24V, 700mA | ±8% | 250mV | 83% |

APV-25 Series (C.V. mode)



| Model No. | Output | Tol. | R&N | Effi. |
|-----------|--------------|------|-------|-------|
| APV-25-5 | 5V, 0~3.5A | ±5% | 100mV | 77% |
| APV-25-12 | 12V, 0~2.1A | ±5% | 120mV | 82% |
| APV-25-15 | 15V, 0~1.68A | ±5% | 120mV | 83% |
| APV-25-24 | 24V, 0~1.05A | ±5% | 150mV | 83% |
| APV-25-36 | 36V, 0~0.7A | ±5% | 150mV | 83% |

APC-25 Series (C.C. mode)



| Model No. | Output | Io Tol. | R&N | Effi. |
|-------------|---------------|---------|-------|-------|
| APC-25-350 | 25~70V, 350mA | ±5% | 300mV | 83% |
| APC-25-500 | 15~50V, 500mA | ±5% | 300mV | 83% |
| APC-25-700 | 11~36V, 700mA | ±5% | 300mV | 83% |
| APC-25-1050 | 9~24V, 1050mA | ±5% | 300mV | 83% |

APV-35 Series (C.V. mode)



| Model No. | Output | Tol. | R&N | Effi. |
|-----------|-------------|------|-------|-------|
| APV-35-5 | 5V, 0~5.0A | ±5% | 100mV | 77% |
| APV-35-12 | 12V, 0~3.0A | ±5% | 150mV | 84% |
| APV-35-15 | 15V, 0~2.4A | ±5% | 150mV | 84% |
| APV-35-24 | 24V, 0~1.5A | ±5% | 180mV | 84% |
| APV-35-36 | 36V, 0~1.0A | ±5% | 180mV | 84% |

APC-35 Series (C.C. mode)



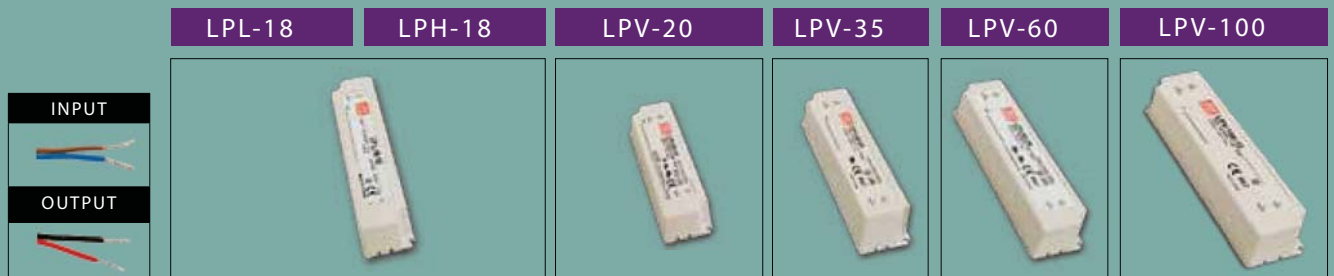
| Model No. | Output | Io Tol. | R&N | Effi. |
|-------------|----------------|---------|-------|-------|
| APC-35-350 | 28~100V, 350mA | ±5% | 350mV | 84% |
| APC-35-500 | 25~70V, 500mA | ±5% | 350mV | 84% |
| APC-35-700 | 15~50V, 700mA | ±5% | 350mV | 84% |
| APC-35-1050 | 11~33V, 1050mA | ±5% | 350mV | 84% |

LP series

18~100W Single Output Class 2 Power Unit

► Features

- Universal AC input / Full range (LPV)
- 180~264VAC input only (LPH-18)
- 90~132VAC input only (LPL-18)
- Fully encapsulated with IP67 level
- Protections: Short circuit / Overload / Over voltage / Over temperature (LPH-18/LPL-18 only)
- **Constant voltage design (C.V. mode)**
- Class 2 power unit / Pass LPS (except for LPV-100)
- Isolation class II, no F.G.
- Withstand 300VAC surge input for 5 seconds (except for LPH/LPL-18)
- Cooling by free air convection
- 100% full load burn-in test
- Low cost, high reliability
- Suitable for LED-based decorative/architectural lighting, LED stage and theater lighting, and LED electronic displays
- 2 years warranty



| | | | | | |
|--------------------------|---|---|--|---------------------------|---------------------------|
| AC input voltage range | 90~132VAC | 180~264VAC | 90~264VAC | | |
| AC inrush current (max.) | Cold start, 40A at 115VAC | Cold start, 50A at 230VAC | Cold start, 70A at 230VAC | Cold start, 60A at 230VAC | Cold start, 75A at 230VAC |
| Overload Protection | Range | >105% | | 110%~150% | |
| | Type | Hiccup mode, auto-recovery | | | |
| Over voltage protection | 115%~135% rated output voltage | | | | |
| Withstand voltage | I/P-O/P: 3kVAC | | | | |
| Working temperature | -30~+70°C | | -30~+75°C | -30~+70°C | -25~+70°C |
| Vibration | 10~500Hz, 2G 10 minutes /1 cycle, period for 60 minutes each along X, Y, Z axes | | | | |
| Safety standards | TUV EN60950-1 approved for LPH-18 | | UL1310 (except for LPV-60-5 & LPV-100), UL879 (except for LPV-35/100 & LPV-60-5) approved; Design refer to TUV EN60950-1 | | |
| EMC standards | FCC part 15 class B | EN55022 class B, EN61000-3-2 class A, EN61000-3-3, EN61000-4-2,3,4,5,6,8,11 | | | |
| Connection | Input | UL rated, 18AWGx2C (30cm) | | UL rated, 18AWGx2C (60cm) | 18AWGx2C (30cm) |
| | Output | UL rated, 18AWGx2C (30cm) | | UL rated, 16AWGx2C (60cm) | UL rated, 14AWGx2C (30cm) |
| Dimension (LxWxH)(mm) | 140x 30x 22 | | 118x 35x 26 | 148x 40x 30 | 162.5x 42.5x 32 |
| | | | | 162.5x 42.5x 32 | 190x 52x 37 |

LPL-18 Series (C.V. mode)



| Model No. | Output | Tol. | R&N | Effi. |
|-----------|--------------|------|-------|-------|
| LPL-18-12 | 12V, 0~1.5A | ±3% | 120mV | 80% |
| LPL-18-24 | 24V, 0~0.75A | ±3% | 150mV | 83% |
| LPL-18-36 | 36V, 0~0.5A | ±3% | 200mV | 84% |

LPV-35 Series (C.V. mode)



| Model No. | Output | Tol. | R&N | Effi. |
|-----------|----------------------|------|-------|-------|
| LPV-35-5 | 5V, 0~5.0A (peak 6A) | ±6% | 80mV | 77% |
| LPV-35-12 | 12V, 0~3.0A | ±5% | 120mV | 84% |
| LPV-35-15 | 15V, 0~2.4A | ±5% | 120mV | 84% |
| LPV-35-24 | 24V, 0~1.5A | ±5% | 150mV | 85% |
| LPV-35-36 | 36V, 0~1.0A | ±5% | 150mV | 85% |

LPH-18 Series (C.V. mode)



| Model No. | Output | Tol. | R&N | Effi. |
|-----------|--------------|------|-------|-------|
| LPH-18-12 | 12V, 0~1.5A | ±3% | 120mV | 78% |
| LPH-18-24 | 24V, 0~0.75A | ±3% | 150mV | 82% |
| LPH-18-36 | 36V, 0~0.5A | ±3% | 200mV | 83% |

LPV-60 Series (C.V. mode)



| Model No. | Output | Tol. | R&N | Effi. |
|-----------|--------------|------|-------|-------|
| LPV-60-5 | 5V, 0~8.0A | ±8% | 80mV | 76% |
| LPV-60-12 | 12V, 0~5.0A | ±5% | 120mV | 83% |
| LPV-60-15 | 15V, 0~4.0A | ±5% | 120mV | 83% |
| LPV-60-24 | 24V, 0~2.5A | ±5% | 150mV | 86% |
| LPV-60-36 | 36V, 0~1.67A | ±5% | 150mV | 86% |
| LPV-60-48 | 48V, 0~1.25A | ±5% | 150mV | 86% |

LPV-20 Series (C.V. mode)



| Model No. | Output | Tol. | R&N | Effi. |
|-----------|--------------|------|-------|-------|
| LPV-20-5 | 5V, 0~3.0A | ±5% | 80mV | 77% |
| LPV-20-12 | 12V, 0~1.67A | ±5% | 120mV | 81% |
| LPV-20-15 | 15V, 0~1.33A | ±5% | 120mV | 83% |
| LPV-20-24 | 24V, 0~0.84A | ±5% | 150mV | 83% |

LPV-100 Series (C.V. mode)



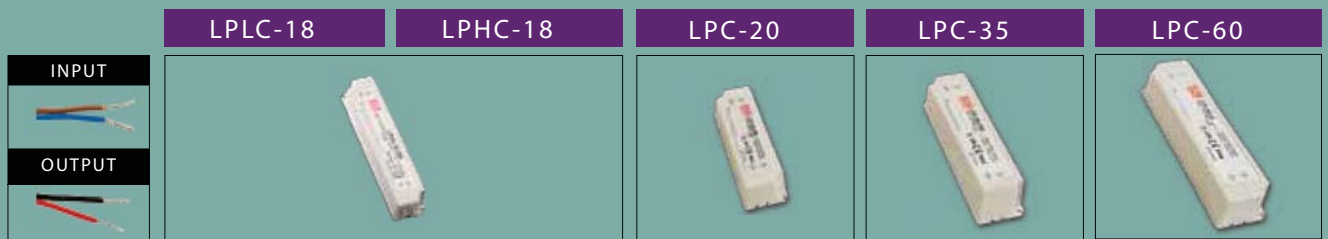
| Model No. | Output | Tol. | R&N | Effi. |
|------------|-------------|------|-------|-------|
| LPV-100-5 | 5V, 0~12.0A | ±8% | 80mV | 80% |
| LPV-100-12 | 12V, 0~8.5A | ±5% | 120mV | 85% |
| LPV-100-15 | 15V, 0~6.7A | ±5% | 120mV | 87% |
| LPV-100-24 | 24V, 0~4.2A | ±5% | 150mV | 88% |
| LPV-100-36 | 36V, 0~2.8A | ±5% | 150mV | 88% |
| LPV-100-48 | 48V, 0~2.1A | ±5% | 150mV | 89% |

LPC series

18~60W Single Output Class 2 Power Unit

Features

- Universal AC input / Full range (LPC)
- 180~264VAC input only (LPHC-18)
- 90~132VAC input only (LPLC-18)
- Fully encapsulated with IP67 level
- Protections: Short circuit / Over voltage / Over temperature (LPLC/LPHC-18 only)
- **Constant current design (C.C. mode)**
- Withstand 300VAC surge input for 5 seconds (except for LPHC/LPLC-18)
- Class 2 power unit / Pass LPS
- Isolation class II, no F.G.
- Cooling by free air convection
- 100% full load burn-in test
- Low cost, high reliability
- Suitable for LED-based decorative / architectural lighting, LED stage and theater lighting, and LED electronic displays
- 2 years warranty



| | LPLC-18 | LPHC-18 | LPC-20 | LPC-35 | LPC-60 |
|--------------------------|---|---------------------------|---|---------------------------|---------------------------|
| AC input voltage range | 90~132VAC | 180~264VAC | 90~264VAC | | |
| AC inrush current (max.) | Cold start, 40A at 115VAC | Cold start, 50A at 230VAC | Cold start, 70A at 230VAC | Cold start, 60A at 230VAC | |
| Over voltage protection | 105%~135% rated output voltage | | | | |
| Withstand voltage | I/P-O/P: 3kVAC | | | | |
| Working temperature | -30~+70°C | | | -30~+75°C | -30~+70°C |
| Vibration | 10~500Hz, 2G 10 minutes /1 cycle, period for 60 minutes each along X, Y, Z axes | | | | |
| Safety standards | Design refer to UL1310, EN60950-1 | | UL1310, UL879 (LPC-20 only) approved; Design refer to TUV EN60950-1 | | |
| EMC standards | FCC part 15 class A(LPLC-18), EN55022 class A, EN61000-3-2 class A, EN61000-3-3, EN61000-4-2,3,4,5,6,8,11 | | EN55022 class B, EN61000-3-2 class A, EN61000-3-3, EN61000-4-2,3,4,5,6,8,11 | | |
| Connection | Input | UL rated, 18AWGx2C (30cm) | | UL rated, 18AWGx2C (60cm) | UL rated, 18AWGx2C (60cm) |
| | Output | | | UL rated, 16AWGx2C (60cm) | |
| Dimension (LxWxH)(mm) | 140x 30x 22 | | 118x 35x 26 | 148x 40x 30 | 162.5x 42.5x 32 |

LPLC-18 Series (C.C. mode)



| Model No. | Output | Io Tol. | R&N | Effi. |
|-------------|--------------|---------|-------|-------|
| LPLC-18-350 | 6~48V, 350mA | ±8% | 300mV | 82% |
| LPLC-18-700 | 6~25V, 700mA | ±8% | 250mV | 80% |

LPHC-18 Series (C.C. mode)



| Model No. | Output | Io Tol. | R&N | Effi. |
|-------------|--------------|---------|-------|-------|
| LPHC-18-350 | 6~48V, 350mA | ±8% | 300mV | 80% |
| LPHC-18-700 | 6~25V, 700mA | ±8% | 250mV | 80% |

LPC-20 Series (C.C. mode)



| Model No. | Output | Io Tol. | R&N | Effi. |
|------------|--------------|---------|-------|-------|
| LPC-20-350 | 9~48V, 350mA | ±5% | 200mV | 83% |
| LPC-20-700 | 9~30V, 700mA | ±5% | 200mV | 83% |

LPC-35 Series (C.C. mode)



| Model No. | Output | Io Tol. | R&N | Effi. |
|-------------|---------------|---------|-------|-------|
| LPC-35-700 | 9~48V, 700mA | ±5% | 200mV | 85% |
| LPC-35-1050 | 9~30V, 1050mA | ±5% | 200mV | 85% |
| LPC-35-1400 | 9~24V, 1400mA | ±5% | 200mV | 85% |

LPC-60 Series (C.C. mode)



| Model No. | Output | Io Tol. | R&N | Effi. |
|-------------|---------------|---------|-------|-------|
| LPC-60-1050 | 9~48V, 1050mA | ±5% | 200mV | 87% |
| LPC-60-1400 | 9~42V, 1400mA | ±5% | 200mV | 85% |
| LPC-60-1750 | 9~34V, 1750mA | ±5% | 200mV | 87% |

ELN series

30~60W Single Output Class 2 Power Unit

Features

- Universal AC input / Full range
- Fully isolated plastic case with IP64 level
- Built-in constant current limiting circuit with adjustable OCP level
- Protections: Short circuit / Over current / Over voltage
- **Optional dimming function: 1.1~10VDC(D type) or PWM (P type) controlled**
- Class 2 power unit / Pass LPS
- Isolation class II, no F.G.
- Cooling by free air convection
- Suitable for economical LED indoor lighting and LED electronic displays
- 2 years warranty



| | | |
|--------------------------|--|--|
| AC input voltage range | 90~264VAC ; 127~370VDC | |
| AC inrush current (max.) | Cold start, 60A at 230VAC | |
| DC adjustment range | ±10% rated output voltage | |
| Current adjustment range | 75%~103% rated output current adjustable by internal potentiometer | |
| Over current protection | 95%~110% constant current limiting, auto-recovery | |
| Over voltage protection | Range | 110%~150% rated output voltage |
| | Type | Shut down o/p voltage, re-power on to recover |
| Withstand voltage | I/P-O/P: 3kVAC | |
| Working temperature | -20~+60°C (refer to output derating curve) | |
| Vibration | 10~500Hz, 2G 10 minutes / 1 cycle, period for 60 minutes each along X, Y, Z axes | |
| Safety standards | UL1310 approved; Design refer to TUV EN60950-1 | |
| EMC standards | EN55022 class B, EN61000-3-2 class A, EN61000-3-3, EN61000-4-2,3,4,5,6,8,11 | |
| Connection | Input | UL rated, SVT 18AWGx2C (32cm) |
| | Output | Without dimming: UL rated, SVT 18AWGx2C (32cm) With dimming(optional): UL2464 18AWGx4C (32cm) |
| Dimension (LxWxH)(mm) | 145x 47x 30 | 181x 61.5x 35 |
| Packing | 0.26kg ; 60pcs / 16.6kg | 0.4kg ; 24pcs / 11.0kg |

ELN-30 Series



| Model No. | Output | Tol. | R&N | Effi. |
|-----------|--------------|------|-------|-------|
| ELN-30-5 | 5V, 0~5.0A | ±5% | 80mV | 75% |
| ELN-30-9 | 9V, 0~3.4A | ±5% | 100mV | 80% |
| ELN-30-12 | 12V, 0~2.5A | ±5% | 120mV | 82% |
| ELN-30-15 | 15V, 0~2.0A | ±5% | 120mV | 82% |
| ELN-30-24 | 24V, 0~1.25A | ±5% | 150mV | 85% |
| ELN-30-27 | 27V, 0~1.12A | ±5% | 150mV | 85% |
| ELN-30-48 | 48V, 0~0.63A | ±5% | 250mV | 87% |

ELN-60 Series

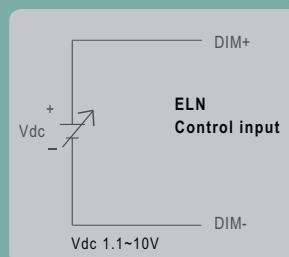


| Model No. | Output | Tol. | R&N | Effi. |
|-----------|-------------|------|-------|-------|
| ELN-60-9 | 9V, 0~5.0A | ±5% | 120mV | 82% |
| ELN-60-12 | 12V, 0~5.0A | ±5% | 120mV | 85% |
| ELN-60-15 | 15V, 0~4.0A | ±5% | 150mV | 86% |
| ELN-60-24 | 24V, 0~2.5A | ±5% | 150mV | 87% |
| ELN-60-27 | 27V, 0~2.3A | ±5% | 200mV | 87% |
| ELN-60-48 | 48V, 0~1.3A | ±5% | 250mV | 88% |

Dimming Control (optional)

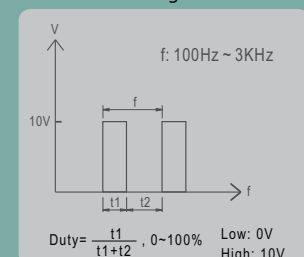
Through the dimming function, output current of ELN series can be adjusted to reduce the energy consumption or adjust the brightness of LEDs connecting to it. Two kinds of control signal are accepted: 1.1~10VDC (D-type option) or PWM signal (P-type option).

- D Type : 1.1~10Vdc external control signal



Order No.: ELN-**30**-**5**D

- P Type : PWM control signal



Order No.: ELN-30**5**P

PCD series

16~60W Single Output AC Dimmable Power Unit

Features

- 115VAC or 230VAC input, **AC phase-cut dimming**, work with leading edge and trailing edge TRIAC dimmers
- Built-in active PFC function
- Fully isolated plastic case
- Constant current design
- IP30 design
- Class 2 power unit / Pass LPS
- Isolation class II, no F.G.
- Protections: Short circuit / Over temperature
- Cooling by free air convection
- 3 years warranty

| | | PCD-16/25 | PCD-40/60 |
|--------------------------|----------------|---|---------------------------|
| INPUT (A type) | | | |
| | INPUT (B type) | | |
| OUTPUT | | | |
| AC input voltage range | | 115VAC (90~135VAC) or 230VAC (180~295VAC) | |
| AC inrush current (max.) | | Cold start, 40A at 230VAC | Cold start, 10A at 230VAC |
| Withstand voltage | | I/P - O/P: 3.75KVAC | |
| Working temperature | | -30~+60°C (refer to output derating curve) | |
| Safety standards | | UL8750, ENEC EN61347-2-13(B-Type only) approved (PCD-40/60 pending) | |
| EMC standards | | A-Type: FCC part 18 non-consumer equipment (PCD-16/25); FCC part 15 class B (PCD-40/60) | |
| | | B-Type: EN55015, EN61000-3-2 class C, EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547 | |
| Connection | Input | A-Type: UL1430 18AWGx2C (7.5cm); B-Type: NISPT-1 18AWGx2C (7.5cm) | |
| | Output | UL1430 18AWGx2C (15cm) | |
| Dimension (LxWxH)(mm) | | 84x 57x 29.5 | 128x 60x 31.5 |

PCD-16 Series

| Model No. | Output | Io Tol. | R&N | Effi. |
|--------------------------------------|----------------|---------|------|-------|
| PCD-16-350 <input type="checkbox"/> | 24~48V, 350mA | ±5% | 4.6V | 82.0% |
| PCD-16-700 <input type="checkbox"/> | 16~24V, 700mA | ±5% | 2.7V | 81.0% |
| PCD-16-1050 <input type="checkbox"/> | 12~16V, 1050mA | ±5% | 2.2V | 80.5% |
| PCD-16-1400 <input type="checkbox"/> | 8~12V, 1400mA | ±5% | 2.0V | 80.0% |

= A or B-Type ; A-Type: 90~135VAC, B-Type: 180~295VAC

PCD-25 Series

| Model No. | Output | Io Tol. | R&N | Effi. |
|--------------------------------------|----------------|---------|------|-------|
| PCD-25-350 <input type="checkbox"/> | 40~58V, 350mA | ±5% | 4.6V | 82.0% |
| PCD-25-700 <input type="checkbox"/> | 24~36V, 700mA | ±5% | 2.7V | 81.0% |
| PCD-25-1050 <input type="checkbox"/> | 16~24V, 1050mA | ±5% | 2.2V | 80.5% |
| PCD-25-1400 <input type="checkbox"/> | 12~18V, 1400mA | ±5% | 2.0V | 80.0% |

= A or B-Type ; A-Type: 90~135VAC, B-Type: 180~295VAC

PCD-40 Series

| Model No. | Output | Io Tol. | R&N | Effi. |
|--------------------------------------|----------------|---------|------|-------|
| PCD-40-350 <input type="checkbox"/> | 65~115V, 350mA | ±5% | 4.6V | 87% |
| PCD-40-500 <input type="checkbox"/> | 45~80V, 500mA | ±5% | 2.7V | 87% |
| PCD-40-700 <input type="checkbox"/> | 34~57V, 700mA | ±5% | 2.7V | 86% |
| PCD-40-1050 <input type="checkbox"/> | 22~38V, 1050mA | ±5% | 2.2V | 86% |
| PCD-40-1400 <input type="checkbox"/> | 17~29V, 1400mA | ±5% | 2.0V | 85% |
| PCD-40-1750 <input type="checkbox"/> | 13~23V, 1750mA | ±5% | 2.0V | 85% |

= A or B-Type ; A-Type: 90~135VAC, B-Type: 180~295VAC

PCD-60 Series

| Model No. | Output | Io Tol. | R&N | Effi. |
|--------------------------------------|----------------|---------|------|-------|
| PCD-60-500 <input type="checkbox"/> | 65~115V, 500mA | ±5% | 4.6V | 87% |
| PCD-60-700 <input type="checkbox"/> | 50~86V, 700mA | ±5% | 2.7V | 86% |
| PCD-60-1050 <input type="checkbox"/> | 34~57V, 1050mA | ±5% | 2.2V | 86% |
| PCD-60-1400 <input type="checkbox"/> | 25~43V, 1400mA | ±5% | 2.0V | 85% |
| PCD-60-1750 <input type="checkbox"/> | 20~34V, 1750mA | ±5% | 1.5V | 85% |
| PCD-60-2000 <input type="checkbox"/> | 18~30V, 2000mA | ±5% | 1.5V | 85% |
| PCD-60-2400 <input type="checkbox"/> | 15~25V, 2400mA | ±5% | 1.0V | 84% |

= A or B-Type ; A-Type: 90~135VAC, B-Type: 180~295VAC

Dimmer Compatibility Chart

| Manufacturer | Dimmer Model | |
|----------------|-----------------------------|---------------------|
| LUTRON | SKYLARK SF-12P-277 | (277VAC / 60Hz) |
| LUTRON | DVF-103P-277 | (277VAC / 60Hz) |
| LUTRON | SKYLARK SF-10P | (120VAC / 60Hz) |
| LUTRON | SKYLARK S-600P | (120VAC / 60Hz) |
| LUTRON | SKYLARK DVF-103P | (120VAC / 60Hz) |
| LEVITON | ILLUMATECH TM Cat.No.IP106 | (120VAC / 60Hz) |
| LEVITON | SURESLIDE TM Cat.No.6633-P | (120VAC / 60Hz) |
| LEVITON | SURESLIDE TM Cat. NO.6615-P | (120VAC / 60Hz) |
| JUNG | Licht-Management 225 T DE | (230VAC / 50Hz) |
| JUNG | Licht-Management 225 NV DE | (230VAC / 50Hz) |
| BERKER | Tronic-Drehdimmer 286710 | (230-240VAC / 50Hz) |
| BE LICHTREGLER | T39.01 | (230VAC / 50Hz) |
| BE LICHTREGLER | T46 | (230VAC / 50Hz) |
| CLIPSAL | 32E450UDM | (220-240VAC / 50Hz) |
| CLIPSAL | NO 32E450TM | (220-240VAC / 50Hz) |

▶ Conduction angle: 30 degrees (min.) / 180 degrees (max.)


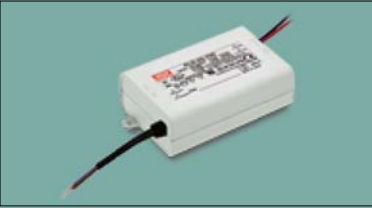

▶ For PCD-16/25/40/60 only

PLD series

16~60W Single Output Class 2 with PFC

Features

- Universal AC input (up to 295VAC) / Full range for PLD-25
- 115VAC or 230VAC input for PLD-16/40/60
- Built-in active PFC function
- Fully isolated plastic case
- Constant current design
- IP30 design
- Class 2 power unit / Pass LPS
- Isolation class II, no F.G.
- Protections: Short circuit / Over temperature
- Suitable for indoor LED lighting applications
- Cooling by free air convection
- 3 years warranty

| | PLD-16 | PLD-25 | PLD-40/60 |
|--------------------------|---|--|---|
| INPUT (A type) |  |  |  |
| INPUT (B type) | | | |
| OUTPUT | | | |
| AC input voltage range | 115VAC (90~135VAC) or 230VAC (180~295VAC) | 90~295VAC | 115VAC (90~135VAC) or 230VAC (180~295VAC) |
| AC inrush current (max.) | Cold start, 40A at 230VAC | | Cold start, 10A at 230VAC |
| Withstand voltage | I/P - O/P: 3.75kVAC | | |
| Short circuit protection | Hiccup mode, recovers automatically after fault condition is removed | | |
| Over Temp. protection | 95°C±10°C (RTH1) shut down o/p voltage re-power on to recover | | |
| Working temperature | -30~+60°C (refer to output derating curve) | | |
| Safety standards | UL8750, ENEC EN61347-2-13 (B-Type & PLD-25 only) approved (PLD-40/60 pending) | | |
| EMC standards | A-Type: FCC part 18 non-consumer equipment (PLD-16/25); FCC part 15 class B (PLD-40/60) | | |
| | B-Type & PLD-25: EN55015, EN61000-3-2 class C, EN61000-3-3, EN61000-4,2,3,4,5,6,8,11, EN61547 | | |
| Connection | Input | | |
| | A-Type: UL1430 18AWGx2C (7.5cm) B-Type & PLD-25: NISPT-1 18AWGx2C (7.5cm) | | |
| | Output | | |
| | UL1430 18AWGx2C (15cm) | | |
| Dimension (LxWxH)(mm) | 84x 57x 29.5 | | 128x 60x 31.5 |

PLD-16 Series



| Model No. | Output | Io Tol. | R&N | Effi. |
|--------------------------------------|----------------|---------|------|-------|
| PLD-16-350 <input type="checkbox"/> | 24~48V, 350mA | ±5% | 4.6V | 86% |
| PLD-16-700 <input type="checkbox"/> | 16~24V, 700mA | ±5% | 2.7V | 86% |
| PLD-16-1050 <input type="checkbox"/> | 12~16V, 1050mA | ±5% | 2.2V | 84% |
| PLD-16-1400 <input type="checkbox"/> | 8~12V, 1400mA | ±5% | 2.0V | 83% |

= A or B-Type ; A-Type: 90~135VAC, B-Type: 180~295VAC

PLD-40 Series



| Model No. | Output | Io Tol. | R&N | Effi. |
|--------------------------------------|----------------|---------|------|-------|
| PLD-40-350 <input type="checkbox"/> | 65~115V, 350mA | ±5% | 4.6V | 88% |
| PLD-40-500 <input type="checkbox"/> | 45~80V, 500mA | ±5% | 2.7V | 88% |
| PLD-40-700 <input type="checkbox"/> | 34~57V, 700mA | ±5% | 2.7V | 87% |
| PLD-40-1050 <input type="checkbox"/> | 22~38V, 1050mA | ±5% | 2.2V | 87% |
| PLD-40-1400 <input type="checkbox"/> | 17~29V, 1400mA | ±5% | 2.0V | 86% |
| PLD-40-1750 <input type="checkbox"/> | 13~23V, 1750mA | ±5% | 2.0V | 86% |

= A or B-Type ; A-Type: 90~135VAC, B-Type: 180~295VAC

PLD-25 Series



| Model No. | Output | Io Tol. | R&N | Effi. |
|-------------|----------------|---------|------|-------|
| PLD-25-350 | 36~58V, 350mA | ±5% | 4.6V | 85% |
| PLD-25-700 | 24~36V, 700mA | ±5% | 2.7V | 86% |
| PLD-25-1050 | 16~24V, 1050mA | ±5% | 2.2V | 85% |
| PLD-25-1400 | 12~18V, 1400mA | ±5% | 2.0V | 84% |

PLD-60 Series



| Model No. | Output | Io Tol. | R&N | Effi. |
|--------------------------------------|----------------|---------|------|-------|
| PLD-60-500 <input type="checkbox"/> | 65~115V, 500mA | ±5% | 4.6V | 88% |
| PLD-60-700 <input type="checkbox"/> | 50~86V, 700mA | ±5% | 2.7V | 87% |
| PLD-60-1050 <input type="checkbox"/> | 34~57V, 1050mA | ±5% | 2.2V | 87% |
| PLD-60-1400 <input type="checkbox"/> | 25~43V, 1400mA | ±5% | 2.0V | 86% |
| PLD-60-1750 <input type="checkbox"/> | 20~34V, 1750mA | ±5% | 1.5V | 86% |
| PLD-60-2000 <input type="checkbox"/> | 18~30V, 2000mA | ±5% | 1.5V | 86% |
| PLD-60-2400 <input type="checkbox"/> | 15~25V, 2400mA | ±5% | 1.0V | 85% |

= A or B-Type ; A-Type: 90~135VAC, B-Type: 180~295VAC

LPF series

16~90W Single Output Class 2 with PFC

Features

- Universal AC input (up to 305VAC) / Full range
- Protections: Short circuit / Over current / Over voltage / Over temperature
- Built-in active PFC function
- Fully isolated plastic case
- Isolation class II, no F.G.
- Class 2 power unit / Pass LPS
- Built-in 3 in 1 dimming function (1~10VDC, PWM signal or resistance) for D type
- Fully encapsulated with IP67 level [optional for LPF-16(D)]
Cooling by free air convection
- Suitable for LED lighting and moving sign applications
- Suitable for dry, damp, wet location
- 3 years warranty

LPF-16(D)/25(D)

LPF-40(D)/60(D)

LPF-90(D)

| | |
|-------------------------------|--|
| INPUT | |
| OUTPUT (Non-Dimming Function) | |
| OUTPUT (Dimming Function) | |



| | | | |
|--------------------------|---|--|--|
| AC input voltage range | 90~305VAC ; 127~431VDC | | |
| AC inrush current (max.) | Cold start, 50A at 230VAC | Cold start, 75A at 230VAC | Cold start, 70A at 230VAC |
| Over current protection | 95% ~108% constant current, auto-recovery | | |
| Over voltage protection | 110%~145% rated output voltage | | |
| Withstand voltage | I/P - O/P: 3.75kVAC | | |
| Working temperature | -40~+70°C (refer to output derating curve) | | |
| Safety standards | UL8750, ENEC EN61347-1, EN61347-2-13 approved for LPF-16(D)/25(D); UL8750, TUV EN61347-1, EN61347-2-13, PSE J61347-1, J61347-2-13 approved for LPF-40(D)/60(D)/90(D) | | |
| EMC standards | EN55015, EN61547, EN61000-3-2 class C, EN61000-3-3, EN61000-4-2,3,4,5,6,8,11 | | |
| Connection | Input | UL rated, SJTW 18AWGx2C (30cm) | |
| | Output | LPF-16/25: UL rated, SVT 18AWGx2C (30cm) LPF-16D/25D: UL rated, SVT 18AWGx4C (30cm) | LPF-40/60: UL rated, SVT 18AWGx2C (30cm) LPF-40D/60D: UL2464 18AWGx2C(30cm)+22AWGx2C (30cm) |
| Dimension (LxWxH)(mm) | 148x 40x 32 | 162.5x 43x 32 | 161x 61x 36 |

LPF-16 Series



| Model No. | Output | Tol. | R&N | Effi. |
|-----------|--------------|-------|-------|-------|
| LPF-16-12 | 12V, 0~1.34A | ±4.0% | 150mV | 83.0% |
| LPF-16-15 | 15V, 0~1.07A | ±4.0% | 150mV | 83.0% |
| LPF-16-20 | 20V, 0~0.80A | ±4.0% | 150mV | 84.5% |
| LPF-16-24 | 24V, 0~0.67A | ±4.0% | 150mV | 84.5% |
| LPF-16-30 | 30V, 0~0.54A | ±4.0% | 200mV | 84.5% |
| LPF-16-36 | 36V, 0~0.45A | ±4.0% | 250mV | 85.0% |
| LPF-16-42 | 42V, 0~0.39A | ±4.0% | 250mV | 85.0% |
| LPF-16-48 | 48V, 0~0.34A | ±4.0% | 250mV | 85.0% |
| LPF-16-54 | 54V, 0~0.30A | ±4.0% | 350mV | 84.5% |

LPF-25 Series



| Model No. | Output | Tol. | R&N | Effi. |
|-----------|--------------|-------|-------|-------|
| LPF-25-12 | 12V, 0~2.10A | ±4.0% | 150mV | 84.0% |
| LPF-25-15 | 15V, 0~1.67A | ±4.0% | 150mV | 84.0% |
| LPF-25-20 | 20V, 0~1.25A | ±4.0% | 150mV | 85.0% |
| LPF-25-24 | 24V, 0~1.05A | ±4.0% | 150mV | 85.5% |
| LPF-25-30 | 30V, 0~0.84A | ±4.0% | 200mV | 85.5% |
| LPF-25-36 | 36V, 0~0.70A | ±4.0% | 250mV | 85.5% |
| LPF-25-42 | 42V, 0~0.60A | ±4.0% | 250mV | 85.5% |
| LPF-25-48 | 48V, 0~0.53A | ±4.0% | 250mV | 86.0% |
| LPF-25-54 | 54V, 0~0.47A | ±4.0% | 350mV | 86.0% |

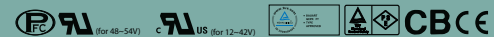
LPF-40 Series



| Model No. | Output | Tol. | R&N | Effi. |
|-----------|--------------|-------|-------|-------|
| LPF-40-12 | 12V, 0~3.34A | ±4.0% | 150mV | 84.0% |
| LPF-40-15 | 15V, 0~2.67A | ±4.0% | 150mV | 85.0% |
| LPF-40-20 | 20V, 0~2.00A | ±4.0% | 150mV | 86.0% |

| Model No. | Output | Tol. | R&N | Effi. |
|-----------|--------------|-------|-------|-------|
| LPF-40-24 | 24V, 0~1.67A | ±4.0% | 150mV | 87.0% |
| LPF-40-30 | 30V, 0~1.34A | ±4.0% | 200mV | 88.0% |
| LPF-40-36 | 36V, 0~1.12A | ±4.0% | 250mV | 88.0% |
| LPF-40-42 | 42V, 0~0.96A | ±4.0% | 250mV | 88.5% |
| LPF-40-48 | 48V, 0~0.84A | ±4.0% | 250mV | 89.0% |
| LPF-40-54 | 54V, 0~0.76A | ±4.0% | 350mV | 89.0% |

LPF-60 Series



| Model No. | Output | Tol. | R&N | Effi. |
|-----------|--------------|-------|-------|-------|
| LPF-60-12 | 12V, 0~5.00A | ±4.0% | 150mV | 86% |
| LPF-60-15 | 15V, 0~4.00A | ±4.0% | 150mV | 87% |
| LPF-60-20 | 20V, 0~3.00A | ±4.0% | 150mV | 88% |
| LPF-60-24 | 24V, 0~2.50A | ±4.0% | 150mV | 89% |
| LPF-60-30 | 30V, 0~2.00A | ±4.0% | 200mV | 90% |
| LPF-60-36 | 36V, 0~1.67A | ±4.0% | 250mV | 90% |
| LPF-60-42 | 42V, 0~1.43A | ±4.0% | 250mV | 90% |
| LPF-60-48 | 48V, 0~1.25A | ±4.0% | 250mV | 90% |
| LPF-60-54 | 54V, 0~1.12A | ±4.0% | 350mV | 90% |

LPF-90 Series



| Model No. | Output | Tol. | R&N | Effi. |
|-----------|--------------|-------|-------|-------|
| LPF-90-15 | 15V, 0~5.00A | ±4.0% | 150mV | 89.0% |
| LPF-90-20 | 20V, 0~4.50A | ±4.0% | 150mV | 89.5% |
| LPF-90-24 | 24V, 0~3.75A | ±4.0% | 150mV | 90.0% |
| LPF-90-30 | 30V, 0~3.00A | ±4.0% | 200mV | 90.5% |
| LPF-90-36 | 36V, 0~2.50A | ±4.0% | 200mV | 90.5% |
| LPF-90-42 | 42V, 0~2.15A | ±4.0% | 200mV | 90.5% |
| LPF-90-48 | 48V, 0~1.88A | ±4.0% | 200mV | 90.5% |
| LPF-90-54 | 54V, 0~1.67A | ±4.0% | 200mV | 90.5% |

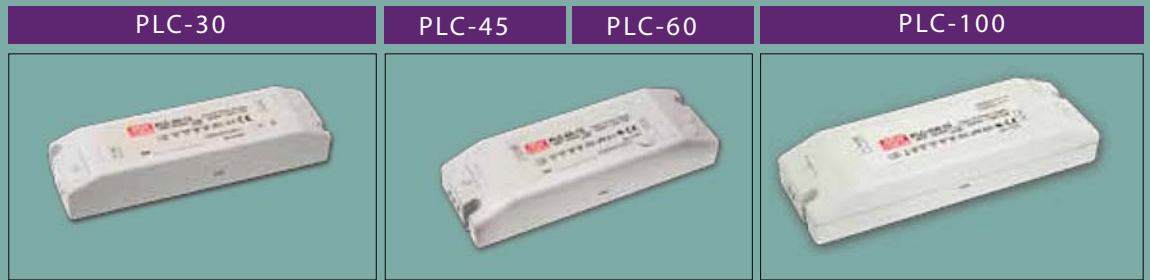
□ Blank, D; Blank: without dimming function, D: with dimming function

PLC series

30~96W Single Output Class 2 with PFC

► Features

- Universal AC input / Full range
- Fully isolated plastic case with screw terminal style of I/O
- Built-in constant current limiting circuit (C.V.+C.C. mode)
- Adjustable output voltage and current level
- Built-in active PFC function, PF>0.9 for 75% of load or higher
- High efficiency up to 90%
- Class 2 power unit / Pass LPS
- Isolation class II, no F.G. for PLC-30
- Cooling by free air convection
- Protections: Short circuit / Over current / Over voltage / Over temperature
- 100% full load burn-in test
- Suitable for LED lighting and moving sign applications
- 2 years warranty



| | | | |
|-----------------------------|--|---|---|
| AC input voltage range | 90~264VAC ; 127~370VDC | | |
| AC inrush current (max.) | Cold start, 40A at 230VAC | | |
| DC adjustment range | 95%~108% rated output voltage adjustable by internal potentiometer | | 85%~100% rated output voltage |
| Current adjustment range | 75%~103% rated output current adjustable by internal potentiometer | | 75%~100% rated output voltage |
| Over current protection | 100%~110% constant current limiting, auto-recovery | 95%~110% constant current limiting, auto-recovery | 95%~102% constant current limiting, auto-recovery |
| Over voltage protection | 110%~155% rated output voltage | 115%~140% rated output voltage | 107%~135% rated output voltage |
| Setup time | 1500ms at full load and 230VAC | | 1200ms at full load and 230VAC |
| Withstand voltage | I/P-O/P: 3.75kVAC | I/P-O/P: 3.75kVAC, I/P-FG: 1.88kVAC, O/P-FG:0.5kVAC | |
| Working temperature | -30~+50°C (refer to output derating curve) | | |
| Safety standards | UL1310, TUV EN61347-1, EN61347-2-13, PSE J61347-1, J61347-2-13 approved; TUV EN60950-1 approved for PLC-100 only | | |
| EMC standards | EN55015, EN55022 class B (PLC-45/60/100), EN61000-3-2 class C, EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547 | | |
| Connection (Input / Output) | 2+2P screw terminal block | 3+2P screw terminal block | |
| Dimension (LxWxH)(mm) | 160x 46x 30 | 181.5x 62x 35 | 200.5x 69.5x 35 |
| Packing | 0.2kg ; 70pcs / 15kg | 0.41kg ; 30pcs / 13.3kg | 0.52kg ; 25pcs / 14kg |

PLC-30 Series

| Model No. | Output | Tol. | R&N | Eff. |
|-----------|--------------|------|------|-------|
| PLC-30-9 | 9V, 0~3.3A | ±10% | 2.6V | 80.0% |
| PLC-30-12 | 12V, 0~2.5A | ±10% | 2.0V | 82.5% |
| PLC-30-15 | 15V, 0~2.0A | ±10% | 2.6V | 83.5% |
| PLC-30-20 | 20V, 0~1.5A | ±10% | 2.6V | 84.0% |
| PLC-30-24 | 24V, 0~1.25A | ±10% | 2.4V | 84.0% |
| PLC-30-27 | 27V, 0~1.12A | ±10% | 2.3V | 84.5% |
| PLC-30-36 | 36V, 0~0.84A | ±10% | 3.6V | 85.0% |
| PLC-30-48 | 48V, 0~0.63A | ±10% | 3.7V | 85.5% |

PLC-60 Series

| Model No. | Output | Tol. | R&N | Eff. |
|-----------|-------------|------|------|-------|
| PLC-60-12 | 12V, 0~5.0A | ±10% | 2.0V | 85.0% |
| PLC-60-15 | 15V, 0~4.0A | ±10% | 2.4V | 86.0% |
| PLC-60-20 | 20V, 0~3.0A | ±10% | 1.8V | 87.5% |
| PLC-60-24 | 24V, 0~2.5A | ±10% | 2.4V | 87.0% |
| PLC-60-27 | 27V, 0~2.3A | ±10% | 2.7V | 88.0% |
| PLC-60-36 | 36V, 0~1.7A | ±10% | 3.6V | 89.0% |
| PLC-60-48 | 48V, 0~1.3A | ±10% | 4.6V | 89.0% |

PLC-45 Series

| Model No. | Output | Tol. | R&N | Eff. |
|-----------|--------------|------|------|-------|
| PLC-45-12 | 12V, 0~3.8A | ±10% | 2.0V | 83.5% |
| PLC-45-15 | 15V, 0~3.0A | ±10% | 2.4V | 85.0% |
| PLC-45-20 | 20V, 0~2.3A | ±10% | 1.8V | 86.5% |
| PLC-45-24 | 24V, 0~1.9A | ±10% | 2.7V | 86.5% |
| PLC-45-27 | 27V, 0~1.7A | ±10% | 2.7V | 86.5% |
| PLC-45-36 | 36V, 0~1.25A | ±10% | 3.6V | 87.5% |
| PLC-45-48 | 48V, 0~0.95A | ±10% | 4.6V | 87.5% |

PLC-100 Series

| Model No. | Output | Tol. | R&N | Eff. |
|------------|--------------|------|-------|-------|
| PLC-100-12 | 12V, 0~5.0A | ±3% | 150mV | 84.5% |
| PLC-100-15 | 15V, 0~5.0A | ±3% | 150mV | 86.5% |
| PLC-100-20 | 20V, 0~4.8A | ±3% | 150mV | 90.0% |
| PLC-100-24 | 24V, 0~4.0A | ±3% | 150mV | 90.0% |
| PLC-100-27 | 27V, 0~3.55A | ±3% | 150mV | 90.0% |
| PLC-100-36 | 36V, 0~2.65A | ±2% | 150mV | 90.0% |
| PLC-100-48 | 48V, 0~2.0A | ±2% | 200mV | 89.0% |

PLN series

20~96W Single Output Class 2 with PFC

Features

- Universal AC input (up to 295VAC) / Full range
- Fully isolated plastic case with IP64 level
- Built-in active PFC function, PF>0.9 for 75% of load or higher
- Protections: Short circuit / Over current / Over voltage / Over temperature
- Built-in constant current limiting circuit (C.V.+C.C. mode)
- Class 2 power unit / Pass LPS
- Isolation class II, no F.G. for PLN-20/30
- User adjustable output voltage (except for PLN-20) and current protection level
- Cooling by free air convection
- Suitable for LED lighting and moving sign applications
- 2 years warranty

| | PLN-20 | PLN-30 | PLN-45/60 | PLN-100 | | | | | | | | | | | | | | | |
|--|---|--|---|---|-------|--|--|--------|--------|---------------|--|--|--|--------|--|--------|------------------|--|--|
| <table border="1"> <thead> <tr> <th colspan="3">INPUT</th> </tr> <tr> <th>PLN-20</th> <th>PLN-30</th> <th>PLN-45/60/100</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="2">OUTPUT</th> </tr> <tr> <th>PLN-20</th> <th>PLN-30/45/60/100</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> </tr> </tbody> </table> | | | | | INPUT | | | PLN-20 | PLN-30 | PLN-45/60/100 | | | | OUTPUT | | PLN-20 | PLN-30/45/60/100 | | |
| INPUT | | | | | | | | | | | | | | | | | | | |
| PLN-20 | PLN-30 | PLN-45/60/100 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| OUTPUT | | | | | | | | | | | | | | | | | | | |
| PLN-20 | PLN-30/45/60/100 | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| AC input voltage range | 90~277VAC; 127~392VDC | | 90~295VAC ; 127~417VDC | | | | | | | | | | | | | | | | |
| AC inrush current (max.) | Cold start, 40A at 230VAC | | | | | | | | | | | | | | | | | | |
| DC adjustment range | None | 95%~108% rated output voltage adjustable by internal potentiometer | | 85%~100% rated output voltage | | | | | | | | | | | | | | | |
| Current adjustment range | 75%~100% | 75%~103% rated output current adjustable by internal potentiometer | | | | | | | | | | | | | | | | | |
| Over current protection | 95%~110% constant current limiting, auto-recovery | 100%~110% constant current limiting, auto-recovery | 95%~110% constant current limiting, auto-recovery | 95%~102% constant current limiting, auto-recovery | | | | | | | | | | | | | | | |
| Over voltage protection | 105%~142% rated output voltage | 110%~155% rated output voltage | 115%~140% rated output voltage | 107%~135% rated output voltage | | | | | | | | | | | | | | | |
| Setup, rise, hold up time | 2300ms(setup time) at full load and 230VAC, no hold up time | 1500ms (setup time) at full load and 230VAC, no hold up time | | 1200ms, 80ms, 60ms at full load and 230VAC | | | | | | | | | | | | | | | |
| Withstand voltage | I/P-O/P: 3.75kVAC | | | | | | | | | | | | | | | | | | |
| Working temperature | -30~+60°C | -30~+50°C (refer to output derating curve) | | | | | | | | | | | | | | | | | |
| Safety standards | UL8750, TUV EN61347-1, EN61347-2-13, PSE J61347-1, J61347-2-13 approved for PLN-20 UL879, UL1310, UL8750(PLN-45/60), TUV EN61347-1, EN61347-2-13, PSE J61347-1, J61347-2-13 approved for PLN-30/45/60 UL879, UL1310, UL8750, TUV EN61347-1, EN61347-2-13, EN60950-1, PSE J61347-1, J61347-2-13 approved for PLN-100 | | | | | | | | | | | | | | | | | | |
| EMC standards | EN55015, EN55022 class B (PLN-60/100 only), EN61000-3-2 class C, EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547 | | | | | | | | | | | | | | | | | | |
| Connection | Input | UL rated, UL1015 18AWGx2C (32cm) | UL rated, SVT 18AWGx2C (32cm) | UL rated, SVT 18AWGx3C (30cm) | | | | | | | | | | | | | | | |
| | Output | UL rated, SVT 18AWGx2C (31cm) | UL rated, SVT 18AWGx2C (30cm) | UL rated, SVT 18AWGx2C (31cm) | | | | | | | | | | | | | | | |
| Dimension (LxWxH) (mm) | 148.5x 38.5x 28 | 145x 47x 30 | 181x 61.5x 35 | 200x 70.5x 35 | | | | | | | | | | | | | | | |

PLN-20 Series



| Model No. | Output | Tol. | R&N | Effi. |
|-----------|--------------|------|------|-------|
| PLN-20-12 | 12V, 0~1.6A | ±10% | 2.5V | 80.0% |
| PLN-20-18 | 18V, 0~1.1A | ±10% | 3.0V | 81.0% |
| PLN-20-24 | 24V, 0~0.8A | ±10% | 3.0V | 82.0% |
| PLN-20-36 | 36V, 0~0.55A | ±10% | 3.0V | 83.0% |
| PLN-20-48 | 48V, 0~0.42A | ±10% | 3.8V | 83.5% |

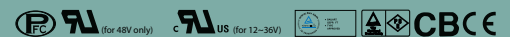
| Model No. | Output | Tol. | R&N | Effi. |
|-----------|--------------|------|------|-------|
| PLN-45-20 | 20V, 0~2.3A | ±10% | 1.8V | 86.5% |
| PLN-45-24 | 24V, 0~1.9A | ±10% | 2.7V | 86.5% |
| PLN-45-27 | 27V, 0~1.7A | ±10% | 2.7V | 86.5% |
| PLN-45-36 | 36V, 0~1.25A | ±10% | 3.6V | 87.5% |
| PLN-45-48 | 48V, 0~0.95A | ±10% | 4.6V | 87.5% |

PLN-30 Series



| Model No. | Output | Tol. | R&N | Effi. |
|-----------|--------------|------|------|-------|
| PLN-30-9 | 9V, 0~3.3A | ±10% | 2.6V | 80.0% |
| PLN-30-12 | 12V, 0~2.5A | ±10% | 2.0V | 82.5% |
| PLN-30-15 | 15V, 0~2.0A | ±10% | 2.6V | 83.5% |
| PLN-30-20 | 20V, 0~1.5A | ±10% | 2.6V | 84.0% |
| PLN-30-24 | 24V, 0~1.25A | ±10% | 2.6V | 84.0% |
| PLN-30-27 | 27V, 0~1.12A | ±10% | 2.3V | 84.5% |
| PLN-30-36 | 36V, 0~0.84A | ±10% | 4.5V | 85.0% |
| PLN-30-48 | 48V, 0~0.63A | ±10% | 3.7V | 85.5% |

PLN-60 Series



| Model No. | Output | Tol. | R&N | Effi. |
|-----------|-------------|------|------|-------|
| PLN-60-12 | 12V, 0~5.0A | ±10% | 2.0V | 85.0% |
| PLN-60-15 | 15V, 0~4.0A | ±10% | 2.4V | 86.0% |
| PLN-60-20 | 20V, 0~3.0A | ±10% | 1.8V | 87.5% |
| PLN-60-24 | 24V, 0~2.5A | ±10% | 2.7V | 87.0% |
| PLN-60-27 | 27V, 0~2.3A | ±10% | 2.7V | 88.0% |
| PLN-60-36 | 36V, 0~1.7A | ±10% | 3.6V | 89.0% |
| PLN-60-48 | 48V, 0~1.3A | ±10% | 4.6V | 89.0% |

PLN-45 Series



| Model No. | Output | Tol. | R&N | Effi. |
|-----------|-------------|------|------|-------|
| PLN-45-12 | 12V, 0~3.8A | ±10% | 2.0V | 83.5% |
| PLN-45-15 | 15V, 0~3.0A | ±10% | 2.4V | 85.0% |

PLN-100 Series



| Model No. | Output | Tol. | R&N | Effi. |
|------------|--------------|------|-------|-------|
| PLN-100-12 | 12V, 0~5.0A | ±3% | 150mV | 84.5% |
| PLN-100-15 | 15V, 0~5.0A | ±3% | 150mV | 86.5% |
| PLN-100-20 | 20V, 0~4.8A | ±3% | 150mV | 90.0% |
| PLN-100-24 | 24V, 0~4.0A | ±3% | 150mV | 90.0% |
| PLN-100-27 | 27V, 0~3.55A | ±3% | 150mV | 90.0% |
| PLN-100-36 | 36V, 0~2.65A | ±2% | 150mV | 90.0% |
| PLN-100-48 | 48V, 0~2.0A | ±2% | 200mV | 89.0% |

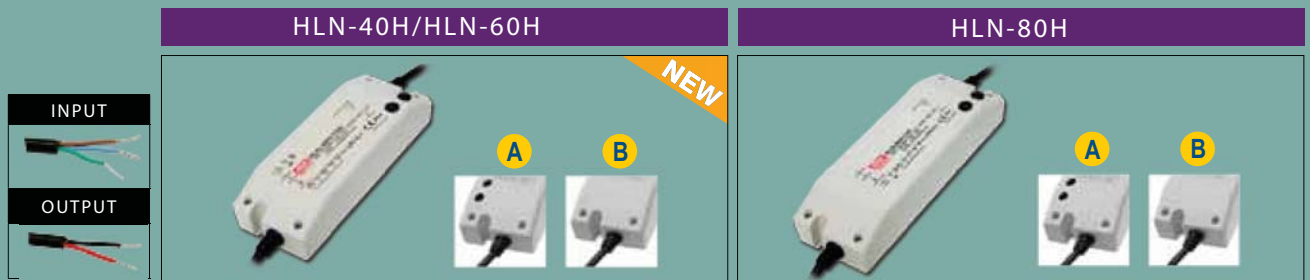
HLN series

40~80W Single Output Class 2 with PFC

Features

- Universal AC input (up to 305VAC) / Full range
- Fully isolated plastic case with IP64 level
- Built-in active PFC function, PF > 0.9 for 60% of load or higher
- Protections:
 - Short circuit / Over current / Over voltage / Over temperature
- Built-in constant current limiting circuit (C.V.+C.C. mode)
- Class 2 power unit / Pass LPS
- High efficiency up to 91%
- Cooling by free air convection

- Suitable for dry, damp location
- Suitable for LED lighting and moving sign applications
- Multiple models for choice:
 - A-Type: IP64 rated. Output voltage and constant current level can be adjusted through internal potentiometer
 - B-Type: IP64 rated and built-in 3 in 1 dimming function (1-10VDC, PWM signal, or resistance)
- 3 years warranty



| | | |
|---------------------------|--|---|
| AC input voltage range | 90~305VAC; 127~431VDC | |
| AC inrush current (max.) | Cold start, 70A at 230VAC | |
| DC adjustment range | ±10% rated output voltage (Type A only) | |
| Current adjustment range | 60%~100% rated output current adjustable by internal potentiometer or through output cable | |
| Over current protection | 95%~108% constant current limiting, auto-recovery | |
| Over voltage protection | 109%~145% rated output voltage | |
| Setup, rise, hold up time | 1000ms, 80ms, 16ms at full load and 230VAC | |
| Withstand voltage | I/P-O/P: 3.75kVAC, I/P-FG: 1.88kVAC, O/P-FG:0.5kVAC | |
| Working temperature | -40~+50°C (refer to output derating curve) | |
| Safety standards | UL8750, TUV EN61347-1, EN61347-2-13, PSE J61347-1, J61347-2-13 approved; Design refer to UL/EN60950-1, EN60335-1 for HLN-40H/60H | |
| EMC standards | EN55015, EN61000-3-2 class C, EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547 | |
| Connection | Input | UL rated, SVT 18AWGx3C (30cm) |
| | Output | A Type: UL rated, SVT 18AWGx2C (30cm) ; B Type: UL rated, SVT 18AWGx4C (30cm) |
| Dimension (LxWxH) (mm) | 161x 61.5x 35 | 181x 61.5x 35 |

HLN-40H Series

| Model No. | Output | Tol. | R&N | Effi. |
|--------------|--------------|-------|-------|-------|
| HLN-40H-12 A | 12V, 0~3.33A | ±2.5% | 150mV | 86.5% |
| HLN-40H-15 A | 15V, 0~2.67A | ±2.0% | 150mV | 86.5% |
| HLN-40H-20 A | 20V, 0~2.00A | ±1.0% | 150mV | 87.5% |
| HLN-40H-24 A | 24V, 0~1.67A | ±1.0% | 150mV | 88.0% |
| HLN-40H-30 A | 30V, 0~1.34A | ±1.0% | 200mV | 88.5% |
| HLN-40H-36 A | 36V, 0~1.12A | ±1.0% | 200mV | 88.5% |
| HLN-40H-42 A | 42V, 0~0.96A | ±1.0% | 300mV | 88.5% |
| HLN-40H-48 A | 48V, 0~0.84A | ±1.0% | 300mV | 89.0% |
| HLN-40H-54 A | 54V, 0~0.75A | ±1.0% | 300mV | 89.0% |

○ = A or B

HLN-60H Series

| Model No. | Output | Tol. | R&N | Effi. |
|--------------|-------------|-------|-------|-------|
| HLN-60H-15 A | 15V, 0~4.0A | ±2.0% | 150mV | 87.0% |
| HLN-60H-20 A | 20V, 0~3.0A | ±1.0% | 150mV | 88.5% |
| HLN-60H-24 A | 24V, 0~2.5A | ±1.0% | 150mV | 89.0% |
| HLN-60H-30 A | 30V, 0~2.0A | ±1.0% | 200mV | 89.5% |

| Model No. | Output | Tol. | R&N | Effi. |
|--------------|--------------|-------|-------|-------|
| HLN-60H-36 A | 36V, 0~1.70A | ±1.0% | 200mV | 90.0% |
| HLN-60H-42 A | 42V, 0~1.45A | ±1.0% | 300mV | 90.0% |
| HLN-60H-48 A | 48V, 0~1.30A | ±1.0% | 300mV | 90.5% |
| HLN-60H-54 A | 54V, 0~1.15A | ±1.0% | 300mV | 90.5% |

○ = A or B

HLN-80H Series

| Model No. | Output | Tol. | R&N | Effi. |
|--------------|--------------|-------|-------|-------|
| HLN-80H-12 A | 12V, 0~5.0A | ±2.5% | 150mV | 88.0% |
| HLN-80H-15 A | 15V, 0~5.0A | ±2.0% | 150mV | 89.0% |
| HLN-80H-20 A | 20V, 0~4.0A | ±1.0% | 150mV | 90.0% |
| HLN-80H-24 A | 24V, 0~3.4A | ±1.0% | 150mV | 90.5% |
| HLN-80H-30 A | 30V, 0~2.7A | ±1.0% | 200mV | 91.0% |
| HLN-80H-36 A | 36V, 0~2.3A | ±1.0% | 200mV | 91.0% |
| HLN-80H-42 A | 42V, 0~1.95A | ±1.0% | 200mV | 91.0% |
| HLN-80H-48 A | 48V, 0~1.7A | ±1.0% | 200mV | 91.0% |
| HLN-80H-54 A | 54V, 0~1.5A | ±1.0% | 200mV | 91.0% |

○ = A or B

LCM series

40~60W Multiple-Stage Output Current Power Unit

LCM-40(DA) / 60(DA)

Under Development



Features

- Output current level selectable by DIP S.W.
- 180~295VAC input only
- Built-in active PFC function
- Protections: Short circuit / Over voltage / Over temperature
- Cooling by free air convection
- Fully isolated plastic case with strain relief design
- Class II power unit, no FG
- IP20 design
- Built-in 0~10Vdc and PWM signal dimming function (LCM-40/60)
- Built-in DALI interface and push dimming function (LCM-40DA/60DA)
- Built-in 12V/50mA auxiliary output
- Temperature compensation function by external NTC
- No load power consumption <1W
- Power supplies synchronization function up to 10 units
- Suitable for indoor LED lighting applications
- 3 years warranty

| | | |
|---------------------------|--|---|
| AC input voltage range | 180~295VAC; 254~417VDC | |
| AC inrush current (max.) | Cold start, 10A at 230VAC | |
| Short circuit protection | Hiccup mode, recovers automatically after fault condition is removed | |
| Over voltage protection | Range | 130~140VDC |
| | Type | Shutdown o/p voltage, re-power on to recover |
| Over Temp. protection | Range | 90°C ±10°C (RTH2) |
| | Type | Shut down o/p voltage, recovers automatically after temperature goes down |
| Setup, rise, hold up time | 1000ms, 80ms, 16ms at full load and 230VAC | |
| Withstand voltage | I/P-O/P: 3.75kVAC | |
| Working temperature | -30~+60°C (refer to output derating curve) | |
| Safety standards | Design refer to UL8750, ENEC EN61347-1, EN61347-2-13 | |
| EMC standards | Design refer to EN55015, EN61000-3-2 class C EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547 | |
| Dimension (LxWxH)(mm) | 123.5x 79x 23 | |

LCM-40(DA) Series

UL/ENEC/CE pending

| Output | Io Tol. | R&N | Effi. | DIP S.W. | | | | | |
|--------------------------------|---------|-------|-------|----------|------|------|------|------|------|
| | | | | 1 | 2 | 3 | 4 | 5 | 6 |
| 350mA, 2~118V | ±5% | 200mV | 90% | ---- | ---- | ---- | ---- | ---- | ---- |
| 500mA, 2~80V | | | | ---- | ---- | ---- | ---- | ---- | ON |
| 600mA, 2~67V | | | | ---- | ---- | ---- | ---- | ON | ON |
| 700mA, 2~57V (Factory setting) | | | | ---- | ---- | ON | ON | ON | ON |
| 900mA, 2~45V | | | | ---- | ON | ON | ON | ON | ON |
| 1050mA, 2~40V | | | | ON | ON | ON | ON | ON | ON |

LCM-60(DA) Series

UL/ENEC/CE pending

| Output | Io Tol. | R&N | Effi. | DIP S.W. | | | | | |
|--------------------------------|---------|-------|-------|----------|------|------|------|------|------|
| | | | | 1 | 2 | 3 | 4 | 5 | 6 |
| 500mA, 2~118V | ±5% | 200mV | 90% | ---- | ---- | ---- | ---- | ---- | ---- |
| 600mA, 2~100V | | | | ---- | ---- | ---- | ---- | ---- | ON |
| 700mA, 2~86V (Factory setting) | | | | ---- | ---- | ---- | ---- | ON | ON |
| 900mA, 2~67V | | | | ---- | ON | ON | ON | ON | ON |
| 1050mA, 2~57V | | | | ON | ON | ON | ON | ON | ON |
| 1400mA, 2~42V | | | | ON | ON | ON | ON | ON | ON |




- ▶ LCM-40/60 are primary models with 0~10Vdc and PWM signal dimming function.
- ▶ LCM-40DA/60DA have DALI interface and push dimming function.

PLP series

20~60W Single Output Class 2 with PFC

► Features

- Universal AC input / Full range
- Protections: Short circuit / Over current / Over voltage / Over temperature (PLP-20 only)
- Built-in active PFC function, PF>0.9 for 75% of load or higher
- Cooling by free air convection
- Class 2 power unit / Pass LPS
- Isolation class II, no F.G. for PLP-20
- Built-in constant current limiting circuit (C.V.+C.C. mode)
- Suitable for building in LED lighting systems
- 2 years warranty

| | PLP-20 | PLP-30 | PLP-45/60 |
|---------------------------|---|--|---|
| |  |  |  |
| AC input voltage range | 90~277VAC; 127~392VDC | 90~264VAC; 127~370VDC | |
| AC inrush current (max.) | Cold start, 40A at 230VAC | | Cold start, 42A at 230VAC |
| Current adjustable range | 75%~100% rated output current | | |
| Over current protection | Range | 95%~110% | 100%~110% |
| | Type | Constant current limiting, auto-recovery | |
| Setup, rise, hold up time | 2300ms, 200ms at full load and 230VAC, no hold up time | 1200ms(setup time) at full load and 230VAC, no hold up time | 1000ms(setup time) at full load and 230VAC, no hold up time |
| Withstand voltage | I/P-O/P: 3.75kVAC | I/P-O/P: 3.75kVAC, I/P-FG: 1.88kVAC, O/P-FG: 0.5kVAC | |
| Working temperature | -30~+60°C | -30~+70°C (refer to output derating curve) | |
| Safety standards | UL8750, TUV EN61347-1, EN61347-2-13 approved | | |
| EMC standards | EN55015, EN61000-3-2 class C, EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547 | | |
| Connection | UL1015 18AWGx2C (30cm) | 3+2P / 3.96mm pitch, JST P/N: B3P / B2P-VH | |
| Dimension (LxWxH)(mm) | 140x 32x 22 | 101.6x 50.8x 26.6 | 101.6x 50.8x 29.6 |

PLP-20 Series



| Model No. | Output | Tol. | R&N | Effi. |
|-----------|--------------|------|------|-------|
| PLP-20-12 | 12V, 0~1.6A | ±10% | 2.5V | 80.0% |
| PLP-20-18 | 18V, 0~1.1A | ±10% | 3.0V | 81.0% |
| PLP-20-24 | 24V, 0~0.8A | ±10% | 3.0V | 82.0% |
| PLP-20-36 | 36V, 0~0.55A | ±10% | 3.0V | 83.0% |
| PLP-20-48 | 48V, 0~0.42A | ±10% | 3.8V | 83.5% |

PLP-45 Series



| Model No. | Output | Tol. | R&N | Effi. |
|-----------|--------------|------|------|-------|
| PLP-45-12 | 12V, 0~3.8A | ±10% | 4.2V | 86% |
| PLP-45-24 | 24V, 0~1.9A | ±10% | 3.8V | 89% |
| PLP-45-48 | 48V, 0~0.95A | ±10% | 4.8V | 89% |

PLP-30 Series






| Model No. | Output | Tol. | R&N | Effi. |
|-----------|--------------|------|------|-------|
| PLP-30-12 | 12V, 0~2.5A | ±10% | 2.0V | 83.0% |
| PLP-30-24 | 24V, 0~1.3A | ±10% | 2.4V | 85.5% |
| PLP-30-48 | 48V, 0~0.63A | ±10% | 4.8V | 86.5% |

PLP-60 Series



| Model No. | Output | Tol. | R&N | Effi. |
|-----------|-------------|------|------|-------|
| PLP-60-12 | 12V, 0~5.0A | ±10% | 4.5V | 84% |
| PLP-60-24 | 24V, 0~2.5A | ±10% | 4.5V | 88% |
| PLP-60-48 | 48V, 0~1.3A | ±10% | 4.8V | 89% |

► Special Symbols for EN61347-2-13

| | |
|---|--|
|  | Protection against overheating to prevent the lamp controlgear case temperature under any conditions of use from exceeding the indicated value (110°C) |
|  | Suitable for direct mounting on normally flammable surfaces, such as wood (>2mm) |
|  | Based on VDE0710-14, can be installed inside a wooden material like wooden cabinet. The minimum distance between the product enclosure to wooden material in each side is defined. |
| LPS | Limited power source |
| $t_c: 80^\circ\text{C}$ $t_a: 40^\circ\text{C}$ | Full load operation up to 40°C with surface temperature of case < 80°C |
| SELV | $V_o < 120\text{VDC}$ can have this mark on the unit |

HLP series

40~80W Single Output Class 2 with PFC

Features

- Universal AC input (up to 305VAC) / Full range
- Protections:
 - Short circuit / Over current / Over voltage / Over temperature
- Built-in active PFC, PF>0.95
- Output constant current level adjustable
- Built-in constant current limiting circuit (C.V.+C.C. mode)
- Class 2 power unit / Pass LPS
- Cooling by free air convection
- Suitable for built-in LED lighting system
- Built-in 3 in 1 dimming function (1~10VDC, PWM signal, or resistance)
- 3 years warranty



| | | |
|---------------------------|--|---|
| AC input voltage range | 90~305VAC ; 127~431VDC | |
| AC inrush current (max.) | Cold start, 70A at 230VAC | |
| DC adjustment range | ±10% rated output voltage | |
| Current adjustment range | 60%~100% rated output current adjustable by potentiometer or through output connector | |
| Over current protection | 95%~108% constant current limiting, auto-recovery | |
| Over voltage protection | 109%~145% rated output voltage, shut off, re-power on to recover | |
| Setup, rise, hold up time | 1000ms, 80ms, 16ms at full load and 230VAC | 1000ms, 200ms, 16ms at full load and 230VAC |
| Withstand voltage | I/P-O/P: 3.75kVAC, I/P-FG: 1.88kVAC, O/P-FG:0.5kVAC | |
| Working temperature | -40~+70°C (refer to output derating curve) | |
| Safety standards | UL8750, TUV EN61347-1, EN61347-2-13 approved; Design refer to EN60335-1(HLP-40H/60H), UL60950-1, EN60950-1 | |
| EMC standards | EN55015, EN61000-3-2 class C, EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547 | |
| Connection | Input | 6+6P/3.96mm pitch, JST P/N: B6P-VH |
| | Output | |
| Dimension (LxWxH) (mm) | 147x 53x 27 | 167x 53x 29.5 |

HLP-40H Series



| Model No. | Output | Tol. | R&N | Effi. |
|------------|--------------|-------|-------|-------|
| HLP-40H-12 | 12V, 0~3.33A | ±2.5% | 150mV | 87.0% |
| HLP-40H-15 | 15V, 0~2.67A | ±2.0% | 150mV | 87.0% |
| HLP-40H-20 | 20V, 0~2.00A | ±1.0% | 150mV | 88.0% |
| HLP-40H-24 | 24V, 0~1.67A | ±1.0% | 150mV | 88.0% |
| HLP-40H-30 | 30V, 0~1.34A | ±1.0% | 200mV | 88.5% |
| HLP-40H-36 | 36V, 0~1.12A | ±1.0% | 200mV | 89.0% |
| HLP-40H-42 | 42V, 0~0.96A | ±1.0% | 300mV | 89.0% |
| HLP-40H-48 | 48V, 0~0.84A | ±1.0% | 300mV | 89.5% |
| HLP-40H-54 | 54V, 0~0.75A | ±1.0% | 300mV | 89.5% |

| Model No. | Output | Tol. | R&N | Effi. |
|------------|--------------|-------|-------|-------|
| HLP-60H-36 | 36V, 0~1.70A | ±1.0% | 200mV | 90.0% |
| HLP-60H-42 | 42V, 0~1.45A | ±1.0% | 300mV | 90.0% |
| HLP-60H-48 | 48V, 0~1.30A | ±1.0% | 300mV | 90.5% |
| HLP-60H-54 | 54V, 0~1.15A | ±1.0% | 300mV | 90.5% |

HLP-60H Series



| Model No. | Output | Tol. | R&N | Effi. |
|------------|-------------|-------|-------|-------|
| HLP-60H-15 | 15V, 0~4.0A | ±2.0% | 150mV | 88.0% |
| HLP-60H-20 | 20V, 0~3.0A | ±1.0% | 150mV | 89.0% |
| HLP-60H-24 | 24V, 0~2.5A | ±1.0% | 150mV | 89.5% |
| HLP-60H-30 | 30V, 0~2.0A | ±1.0% | 200mV | 90.0% |

HLP-80H Series



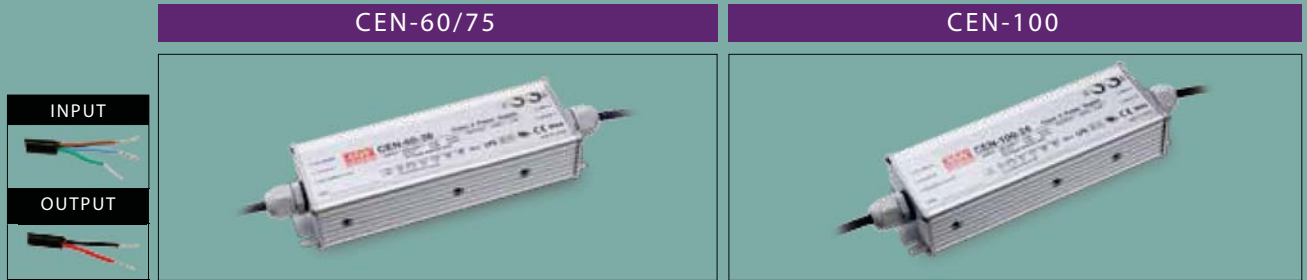
| Model No. | Output | Tol. | R&N | Effi. |
|------------|--------------|-------|-------|-------|
| HLP-80H-12 | 12V, 0~5.0A | ±2.5% | 150mV | 87.5% |
| HLP-80H-15 | 15V, 0~5.0A | ±2.0% | 150mV | 88.5% |
| HLP-80H-20 | 20V, 0~4.0A | ±1.0% | 150mV | 89.5% |
| HLP-80H-24 | 24V, 0~3.4A | ±1.0% | 150mV | 90.0% |
| HLP-80H-30 | 30V, 0~2.7A | ±1.0% | 200mV | 90.0% |
| HLP-80H-36 | 36V, 0~2.3A | ±1.0% | 200mV | 90.0% |
| HLP-80H-42 | 42V, 0~1.95A | ±1.0% | 200mV | 90.0% |
| HLP-80H-48 | 48V, 0~1.7A | ±1.0% | 200mV | 90.0% |
| HLP-80H-54 | 54V, 0~1.5A | ±1.0% | 200mV | 90.0% |

CEN series

60~96W Single Output Class 2 with PFC

Features

- Universal AC input (up to 295VAC) / Full range
- Protections:
 - Short circuit / Over current / Over voltage / Over temperature
- Built-in active PFC function, PF>0.9 for 75% of load or higher
- IP66 design
- Meet 4kV surge immunity level (IEC61000-4-5)
- Class 2 power unit / Pass LPS
- Cooling by free air convection
- Suitable for dry, damp and wet location
- Suitable for LED lighting and moving sign applications
- 3 years warranty



| | | |
|--------------------------|---|---|
| AC input voltage range | 90~295VAC ; 127~417VDC | |
| AC inrush current (max.) | Cold start, 45A at 230VAC | Cold start, 60A at 230VAC |
| DC adjustment range | ±10% rated output voltage | |
| Current adjustment range | 75%~100% rated output current | |
| Over current protection | 95%~110% constant current limiting, auto-recovery | |
| Over voltage protection | 110%~140% shut off, re-power on to recover | 110%~135% shut off, re-power on to recover |
| Over temp. protection | 85°C ±10°C (RTH1) shut down o/p voltage, recovers automatically after fault condition goes down | |
| Setup time | 1400ms at full load and 230VAC, no hold up time | 3000ms at full load and 230VAC, no hold up time |
| Withstand voltage | I/P-O/P: 3.75kVAC, I/P-FG: 1.88kVAC, O/P-FG: 0.5kVAC | |
| Working temperature | -30~+70°C (refer to output derating curve) | |
| Safety standards | UL8750, UL879 (except for CEN-100), TUV EN61347-1, EN61347-2-13, PSE J61347-1, J61347-2-13 approved | |
| EMC standards | EN55015, EN61000-3-2 Class C, EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547 | |
| Connection | Input | UL rated, SJTW 18AWGx3C (30cm) |
| | Output | UL rated, SVT 18AWGx2C (30cm) |
| Dimension (LxWxH) (mm) | 185x 62.5x 40.5 | 195x 62.5x 40.5 |

CEN-60 Series



| Model No. | Output | Tol. | R&N | Effi. |
|-----------|--------------|------|------|-------|
| CEN-60-12 | 12V, 0~5.0A | ±10% | 2.0V | 86% |
| CEN-60-15 | 15V, 0~4.0A | ±10% | 2.4V | 87% |
| CEN-60-20 | 20V, 0~3.0A | ±10% | 1.8V | 88% |
| CEN-60-24 | 24V, 0~2.5A | ±10% | 2.4V | 89% |
| CEN-60-30 | 30V, 0~2.0A | ±10% | 3.0V | 90% |
| CEN-60-36 | 36V, 0~1.7A | ±10% | 3.6V | 90% |
| CEN-60-42 | 42V, 0~1.45A | ±10% | 4.0V | 90% |
| CEN-60-48 | 48V, 0~1.3A | ±10% | 4.6V | 91% |
| CEN-60-54 | 54V, 0~1.15A | ±10% | 5.0V | 91% |

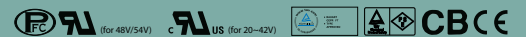
| Model No. | Output | Tol. | R&N | Effi. |
|-----------|--------------|------|------|-------|
| CEN-75-30 | 30V, 0~2.50A | ±10% | 3.0V | 90% |
| CEN-75-36 | 36V, 0~2.10A | ±10% | 3.6V | 90% |
| CEN-75-42 | 42V, 0~1.80A | ±10% | 4.0V | 90% |
| CEN-75-48 | 48V, 0~1.57A | ±10% | 4.6V | 91% |
| CEN-75-54 | 54V, 0~1.40A | ±10% | 5.0V | 91% |

CEN-75 Series



| Model No. | Output | Tol. | R&N | Effi. |
|-----------|--------------|------|------|-------|
| CEN-75-15 | 15V, 0~5.00A | ±10% | 2.7V | 87% |
| CEN-75-20 | 20V, 0~3.75A | ±10% | 2.0V | 88% |
| CEN-75-24 | 24V, 0~3.15A | ±10% | 2.7V | 89% |

CEN-100 Series



| Model No. | Output | Tol. | R&N | Effi. |
|------------|--------------|------|------|-------|
| CEN-100-20 | 20V, 0~4.80A | ±10% | 2.0V | 88% |
| CEN-100-24 | 24V, 0~4.00A | ±10% | 2.7V | 89% |
| CEN-100-30 | 30V, 0~3.20A | ±10% | 3.0V | 90% |
| CEN-100-36 | 36V, 0~2.65A | ±10% | 3.6V | 90% |
| CEN-100-42 | 42V, 0~2.28A | ±10% | 4.0V | 90% |
| CEN-100-48 | 48V, 0~2.00A | ±10% | 4.6V | 91% |
| CEN-100-54 | 54V, 0~1.77A | ±10% | 5.0V | 91% |

CLG series

60~150W Single Output with PFC

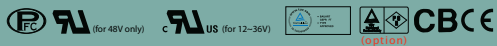
Features

- Universal AC input (up to 295VAC) / Full range
- Protections:
 - Short circuit / Over current / Over voltage / Over temperature
- Built-in active PFC function, PF>0.9 for 75% of load or higher
- IP67/IP65 design for indoor or outdoor installations (except for C type)
- Output current adjustable through output cable or internal potentiometer (CLG-150)
- Class 2 power unit / Pass LPS (CLG-60&100)
- Cooling by free air convection
- Suitable for LED lighting, street lighting and moving sign applications
- Built-in constant current limiting circuit (C.V.+C.C. mode)
- Meet 4KV surge immunity level (IEC 61000-4-5)
- Multiple models for CLG-150 :
 - A-Type:** IP65 rated. Output voltage and constant current level can be adjusted through internal potentiometer
 - B-Type:** IP67 rated. Constant current level adjustable through output cable
 - C-Type:** Non IP. Terminal block for I/O connection
 - Blank-Type:** IP67 rated. Cable for I/O connection
- 3 years warranty



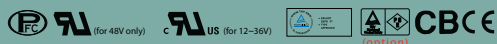
| | | | |
|---------------------------|---|--|--|
| | CLG-60 | CLG-100 | CLG-150 |
| AC input voltage range | 90~295VAC; 127~417VDC | | |
| AC inrush current (max.) | Cold start, 40A at 230VAC | | Cold start, 65A at 230VAC |
| DC adjustment range | Fixed. Can be modified between 90%~110% (CLG-60) or 85%~100% (CLG-100) rated output voltage | | A and C type can be adjusted by internal potentiometer |
| Current adjustment range | Fixed. Can be modified between 75%~103% rated output current | | Can be adjusted by internal potentiometer (A and C type) or through output cable (B type) |
| Over current protection | 95%~110% constant current, auto-recovery | 95%~102% constant current, auto-recovery | 95%~108% constant current limiting, auto-recovery |
| Over voltage protection | 110%~140% | 107%~135% | 110%~142% rated output voltage |
| Setup, rise, hold up time | 3000ms(setup time), no hold up time | 1200ms, 80ms, 60ms at full load and 230VAC | 3000ms, 80ms, 50ms at full load and 230VAC |
| Withstand voltage | I/P-O/P: 3.75kVAC, I/P-FG: 1.88kVAC, O/P-FG: 0.5kVAC | | |
| Working temperature | -30~+70°C (refer to output derating curve) | | |
| Safety standards | UL1310, UL8750, UL879, TUV EN61347-1, EN61347-2-13, PSE J61347-1, J61347-2-13(option, CLG-60-20~48 & CLG-100-36/48 only) approved; TUV EN60950-1 for CLG-100 only | | UL60950-1, UL1012, UL8750, TUV EN60950-1, EN61347-1, EN61347-2-13, PSE J61347-1, J61347-2-13(option, except for CLG-150 C-type) approved |
| EMC standards | EN55015, EN55022 class B, EN61000-3-2 class C, EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547 | | |
| Connection | Input | UL rated, SJTW 18AWGx3C (30cm) | |
| | Output | UL rated, SVT 18AWGx2C (30cm) | |
| Dimension (LxWxH)(mm) | 195.6x 61.5x 38.8 | 222.2x 68x 38.8 | A/B/Blank-Type: 222.2x 68x 38.8; C-Type: 229x 68x 38.8 |
| Packing | 0.86kg; 16pcs / 14.8kg | 1.0kg; 12pcs / 13kg | 1.0kg; 12pcs / 13kg |

CLG-60 Series



| Model No. | Output | Tol. | R&N | Effi. |
|-------------|-------------|------|------|-------|
| ★ CLG-60-12 | 12V, 0~5.0A | ±10% | 2.0V | 85.0% |
| CLG-60-15 | 15V, 0~4.0A | ±10% | 2.4V | 86.0% |
| CLG-60-20 | 20V, 0~3.0A | ±10% | 1.8V | 87.5% |
| ★ CLG-60-24 | 24V, 0~2.5A | ±10% | 2.7V | 87.0% |
| CLG-60-27 | 27V, 0~2.3A | ±10% | 2.7V | 88.0% |
| CLG-60-36 | 36V, 0~1.7A | ±10% | 3.6V | 89.0% |
| ★ CLG-60-48 | 48V, 0~1.3A | ±10% | 4.6V | 89.0% |

CLG-100 Series



| Model No. | Output | Tol. | R&N | Effi. |
|--------------|--------------|------|-------|-------|
| ★ CLG-100-12 | 12V, 0~5.00A | ±3% | 150mV | 83.0% |
| CLG-100-15 | 15V, 0~5.00A | ±3% | 150mV | 85.5% |
| CLG-100-20 | 20V, 0~4.80A | ±3% | 150mV | 88.5% |
| ★ CLG-100-24 | 24V, 0~4.00A | ±3% | 150mV | 88.5% |

| Model No. | Output | Tol. | R&N | Effi. |
|--------------|--------------|------|-------|-------|
| CLG-100-27 | 27V, 0~3.55A | ±3% | 150mV | 88.0% |
| CLG-100-36 | 36V, 0~2.65A | ±2% | 150mV | 88.0% |
| ★ CLG-100-48 | 48V, 0~2.00A | ±2% | 200mV | 88.5% |

CLG-150 Series



| Model No. | Output | Tol. | R&N | Effi. |
|----------------|--------------|------|-------|-------|
| ★ CLG-150-12 □ | 12V, 0~11.0A | ±2% | 150mV | 88% |
| CLG-150-15 □ | 15V, 0~9.50A | ±2% | 150mV | 88% |
| CLG-150-20 □ | 20V, 0~7.50A | ±2% | 150mV | 90% |
| ★ CLG-150-24 □ | 24V, 0~6.30A | ±1% | 150mV | 90% |
| CLG-150-30 □ | 30V, 0~5.00A | ±1% | 150mV | 91% |
| ★ CLG-150-36 □ | 36V, 0~4.20A | ±1% | 150mV | 91% |
| ★ CLG-150-48 □ | 48V, 0~3.20A | ±1% | 200mV | 91% |

□ = A, B, C or blank

★ CLG-60-12/24/48, CLG-100-12/24/48 & CLG-150-12A/24A/36A/48A are our popular models. We will keep sufficient stock for prompt delivery of high quantity orders.

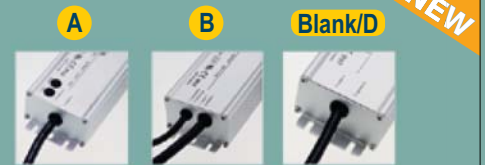
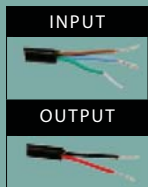
HLG series

40~60W High Efficiency Class 2 with PFC

Features

- Universal AC input (up to 305VAC) / Full range
- Protections:
 - Short circuit / Over current / Over voltage / Over temperature
- Built-in active PFC, PF>0.9 for 60% of load or higher
- High efficiency up to 90.5%
- IP67 / IP65 design for indoor or outdoor installations
- Output current adjustable through output cable or internal potentiometer
- Cooling by free air convection
- Suitable for dry, damp and wet location
- Suitable for LED lighting and street lighting applications
- Meet 4KV surge immunity level (IEC61000-4-5)
- Class 2 power unit
- Multiple models for choice:
 - A-Type:** IP65 rated. Output voltage and constant current level can be adjusted through internal potentiometer
 - B-Type:** IP67 rated and built-in 3 in 1 dimming function (1~10VDC, PWM signal, or resistance)
 - Blank-Type:** IP67 rated. Cable for I/O connection
 - D-Type(option):** IP67 rated. Timer dimming function, contact MEAN WELL for details.
- 5 years warranty

HLG-40H/60H



| | | |
|---------------------------|--|---|
| AC input voltage range | 90~305VAC ; 127~431VDC | |
| AC inrush current (max.) | Cold start, 70A at 230VAC | |
| DC adjustment range | ±10% rated output voltage (A-Type only) | |
| Current adjustment range | 60%~100% rated output current adjustable by internal potentiometer or through output cable | |
| Over current protection | 95%~108% constant current limiting, auto-recovery | |
| Over voltage protection | 109%~145% rated output voltage, shut off, re-power on to recover | |
| Setup, rise, hold up time | 1000ms, 80ms, 16ms at full load and 230VAC | |
| Withstand voltage | I/P-O/P: 3.75kVAC, I/P-FG: 1.88kVAC, O/P-FG:0.5kVAC | |
| Working temperature | -40~+70°C (refer to output derating curve) | |
| Safety standards | UL8750, TUV EN61347-1, EN61347-2-13, PSE J61347-1, J61347-2-13 approved; Design refer to UL60950-1, EN60950-1, EN60335-1 | |
| EMC standards | EN55015, EN61000-3-2 class C, EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547 | |
| Connection | Input | UL rated, SJTW 18AWGx3C (30cm) |
| | Output | A/D/Blank-Type: SVT 18AWGx2C (30cm); B-Type: SVT 18AWGx2C (30cm)+UL2517 18AWGx2C (30cm) |
| Dimension (LxWxH) (mm) | 171x 61.5x 36.8 | |

HLG-40H Series

| Model No. | Output | Tol. | R&N | Effi. |
|----------------|--------------|-------|-------|-------|
| HLG-40H-12 A ○ | 12V, 0~3.33A | ±2.5% | 150mV | 86.5% |
| HLG-40H-15 A ○ | 15V, 0~2.67A | ±2.0% | 150mV | 86.5% |
| HLG-40H-20 A ○ | 20V, 0~2.00A | ±1.0% | 150mV | 88.0% |
| HLG-40H-24 A ○ | 24V, 0~1.67A | ±1.0% | 200mV | 88.0% |
| HLG-40H-30 A ○ | 30V, 0~1.34A | ±1.0% | 200mV | 88.5% |
| HLG-40H-36 A ○ | 36V, 0~1.12A | ±1.0% | 200mV | 88.5% |
| HLG-40H-42 A ○ | 42V, 0~0.96A | ±1.0% | 200mV | 88.5% |
| HLG-40H-48 A ○ | 48V, 0~0.84A | ±1.0% | 300mV | 89.5% |
| HLG-40H-54 A ○ | 54V, 0~0.75A | ±1.0% | 300mV | 89.5% |

○ = A, B, D or Blank

HLG-60H Series

| Model No. | Output | Tol. | R&N | Effi. |
|----------------|-------------|-------|-------|-------|
| HLG-60H-15 A ○ | 15V, 0~4.0A | ±2.0% | 150mV | 87.5% |
| HLG-60H-20 A ○ | 20V, 0~3.0A | ±1.0% | 150mV | 89.0% |
| HLG-60H-24 A ○ | 24V, 0~2.5A | ±1.0% | 150mV | 89.5% |
| HLG-60H-30 A ○ | 30V, 0~2.0A | ±1.0% | 200mV | 90.0% |

| Model No. | Output | Tol. | R&N | Effi. |
|----------------|--------------|-------|-------|-------|
| HLG-60H-36 A ○ | 36V, 0~1.70A | ±1.0% | 200mV | 90.0% |
| HLG-60H-42 A ○ | 42V, 0~1.45A | ±1.0% | 300mV | 90.0% |
| HLG-60H-48 A ○ | 48V, 0~1.30A | ±1.0% | 300mV | 90.5% |
| HLG-60H-54 A ○ | 54V, 0~1.15A | ±1.0% | 300mV | 90.5% |

○ = A, B, D or Blank

Junction Box for HLG Series



- Optional junction box available for HLG-80H~320H series (A/Blank-Type only). Please contact MEAN WELL for details.
- "UL8750 listed" safety & IP66 approved for HLG-80H- BL

HLG series

80~120W High Efficiency with PFC

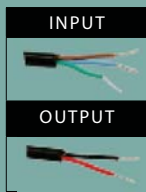
Features

- Universal AC input (up to 305VAC) / Full range
- Protections: Short circuit / Over current / Over voltage / Over temperature
- Built-in active PFC, PF>0.9 for 60% of load or higher
- High efficiency up to 93.5%
- IP67 / IP65 design for indoor or outdoor installations
- Output current adjustable through output cable or internal potentiometer
- Cooling by free air convection
- Suitable for dry, damp and wet location
- Suitable for LED lighting and street lighting applications
- Meet 4KV surge immunity level (IEC61000-4-5)
- Class 2 power unit / Pass LPS (except for HLG-120H)

- Multiple models for choice:
 - A-Type:** IP65 rated. Output voltage and constant current level can be adjusted through internal potentiometer
 - B-Type:** IP67 rated and built-in 3 in 1 dimming function (1~10VDC, PWM signal, or resistance)
 - Blank-Type:** IP67 rated. Cable for I/O connection
 - BL-Type(option):** for HLG-80H only, "UL8750 listed" safety & IP66 approved, contact MEAN WELL for details
 - D-Type(option):** IP67 rated. Timer dimming function, contact MEAN WELL for details
- Optional CQC models available (HLG-100H/120H-A/Blank type)
- 5 years warranty

HLG-80H

HLG-100H/HLG-120H



| | | |
|---------------------------|---|--|
| AC input voltage range | 90~305VAC, 127~431VDC | |
| AC inrush current (max.) | Cold start, 70A at 230VAC | Cold start, 75A at 230VAC |
| DC adjustment range | ±10% rated output voltage (A Type only) | |
| Current adjustment range | 60%~100% rated output current adjustable by internal potentiometer or through output cable | |
| Over current protection | 95%~108% constant current limiting, auto-recovery | |
| Over voltage protection | 110%~140% rated output voltage | |
| Setup, rise, hold up time | 1000ms, 80ms, 16ms at full load and 230VAC | 2500ms, 50ms, 16ms at full load and 230VAC |
| Withstand voltage | I/P-O/P: 3.75kVAC, I/P-FG: 1.88kVAC, O/P-FG:0.5kVAC | |
| Working temperature | -40~+70°C (refer to output derating curve) | |
| Safety standards | UL8750, TUV EN61347-1, EN61347-2-13, PSE J61347-1, J61347-2-13 approved; UL8750 listed for HLG-80H-□BL only ; Design refer to UL60950-1, EN60950-1 | |
| EMC standards | EN55015, EN55022 class B (except for HLG-80H), EN61000-3-2 class C, EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547 | |
| Connection | Input | UL rated, SJTW 18AWGx3C (30cm) |
| | Output | A/D/Blank-Type: SVT 18AWGx2C (30cm) ; B-Type: SVT 18AWGx2C (30cm)+UL2517 18AWGx2C (30cm) |
| Dimension (LxWxH) (mm) | 195.6x 61.5x 38.8 | 220x 68x 38.8 |

HLG-80H Series

| Model No. | Output | Tol. | R&N | Effi. |
|----------------|--------------|-------|-------|-------|
| HLG-80H-12 A ○ | 12V, 0~5.0A | ±2.5% | 150mV | 88.0% |
| HLG-80H-15 A ○ | 15V, 0~5.0A | ±2.0% | 150mV | 89.0% |
| HLG-80H-20 A ○ | 20V, 0~4.0A | ±1.0% | 150mV | 90.0% |
| HLG-80H-24 A ○ | 24V, 0~3.4A | ±1.0% | 150mV | 90.5% |
| HLG-80H-30 A ○ | 30V, 0~2.7A | ±1.0% | 200mV | 91.0% |
| HLG-80H-36 A ○ | 36V, 0~2.3A | ±1.0% | 200mV | 91.0% |
| HLG-80H-42 A ○ | 42V, 0~1.95A | ±1.0% | 200mV | 91.0% |
| HLG-80H-48 A ○ | 48V, 0~1.7A | ±1.0% | 200mV | 91.0% |
| HLG-80H-54 A ○ | 54V, 0~1.5A | ±1.0% | 200mV | 91.0% |

○ = A, B, BL, D or Blank

HLG-100H Series

| Model No. | Output | Tol. | R&N | Effi. |
|-----------------|--------------|-------|-------|-------|
| HLG-100H-20 A ○ | 20V, 0~4.8A | ±1.0% | 150mV | 93% |
| HLG-100H-24 A ○ | 24V, 0~4.0A | ±1.0% | 150mV | 93% |
| HLG-100H-30 A ○ | 30V, 0~3.2A | ±1.0% | 200mV | 93% |
| HLG-100H-36 A ○ | 36V, 0~2.65A | ±1.0% | 200mV | 93% |

| Model No. | Output | Tol. | R&N | Effi. |
|-----------------|--------------|-------|-------|-------|
| HLG-100H-42 A ○ | 42V, 0~2.28A | ±1.0% | 200mV | 93% |
| HLG-100H-48 A ○ | 48V, 0~2.0A | ±1.0% | 200mV | 93% |
| HLG-100H-54 A ○ | 54V, 0~1.77A | ±1.0% | 200mV | 93% |

○ = A, B, D or Blank

HLG-120H Series

| Model No. | Output | Tol. | R&N | Effi. |
|-------------------|-------------|-------|-------|-------|
| ★ HLG-120H-12 A ○ | 12V, 0~10A | ±2.5% | 150mV | 92.0% |
| HLG-120H-15 A ○ | 15V, 0~8.0A | ±2.0% | 150mV | 92.0% |
| HLG-120H-20 A ○ | 20V, 0~6.0A | ±1.0% | 150mV | 93.0% |
| ★ HLG-120H-24 A ○ | 24V, 0~5.0A | ±1.0% | 150mV | 93.0% |
| HLG-120H-30 A ○ | 30V, 0~4.0A | ±1.0% | 200mV | 93.0% |
| HLG-120H-36 A ○ | 36V, 0~3.4A | ±1.0% | 200mV | 93.0% |
| HLG-120H-42 A ○ | 42V, 0~2.9A | ±1.0% | 200mV | 93.0% |
| ★ HLG-120H-48 A ○ | 48V, 0~2.5A | ±1.0% | 200mV | 93.5% |
| HLG-120H-54 A ○ | 54V, 0~2.3A | ±1.0% | 200mV | 93.5% |

○ = A, B, D or Blank

★ HLG-120H-12A/24A/48A are our popular models. We will keep sufficient stock for prompt delivery of high quantity orders.

H LG series

150~320W High Efficiency with PFC

Features

- Universal AC input (up to 305VAC) / Full range
- Protections:
Short circuit / Over current / Over voltage / Over temp.
- Built-in active PFC, PF>0.9 for 60% of load or higher
- High efficiency up to 95%
- IP67 / IP65 design for indoor or outdoor installations (except for C-Type)
- Output current adjustable
- Cooling by free air convection
- Suitable for LED lighting and street lighting applications
- Meet 4KV surge immunity level (IEC61000-4-5)

- Multiple models for choice:
A-Type: IP65 rated. Output voltage and constant current level can be adjusted through internal potentiometer
- B-Type:** IP67 rated and built-in 3 in 1 dimming function (1~10VDC, PWM signal, or resistance)
- C-Type:** Terminal block for I/O connection (HLG-240H/320H)
- Blank-Type:** IP67 rated. Cable for I/O connection
- D-Type(option):** IP67 rated. Timer dimming function, contact MEAN WELL for details
- Optional CQC models available (HLG-150H/185H/240H-A/Blank-Type)
- 5 years warranty



| | | |
|---------------------------|--|--|
| AC input voltage range | 90~305VAC, 127~431VDC | |
| AC inrush current (max.) | Cold start, 75A at 230VAC | |
| DC adjustment range | ±10% rated output voltage | ±6% rated output voltage |
| Current adjustment range | 60%~100% rated output current adjustable by internal potentiometer or through output cable | |
| Over current protection | 95%~108% constant current limiting, auto-recovery | |
| Over voltage protection | 110%~140% rated output voltage | |
| Setup, rise, hold up time | 2500ms, 80ms, 16ms | 2500ms, 80ms, 15ms at full load and 230VAC |
| Withstand voltage | I/P-O/P: 3.75kVAC, I/P-FG: 1.88kVAC, O/P-FG: 0.5kVAC | |
| Working temperature | -40~+70°C (refer to output derating curve) | |
| Safety standards | UL8750, TUV EN61347-1, EN61347-2-13, PSE J61347-1, J61347-2-13 (except for C-Type) approved; UL1012, UL60950-1, TUV EN60950-1 approved for HLG-240H only | |
| EMC standards | EN55015, EN55022 class B, EN61000-3-2 class C, EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547 | |
| Connection | Input | UL rated, SJTW 18AWGx3C (30cm); Terminal block for C-Type (HLG-240H/320H only) |
| | Output | A & Blank-Type: SJTW 14AWGx2C (30cm) ; B-Type: SJTW 14AWGx2C (30cm)+SJTW 18AWGx2C (30cm); C-Type: Terminal block (HLG-240H/320H) |
| Dimension (LxWxH)(mm) | A/B/D/Blank-Type: | A/B/D/Blank-Type: 244.2x 68x 38.8 |
| | | C-Type: 251x 68x 38.8 |
| | | A/B/D/Blank-Type: 252x 90x 43.8 |
| | | C-Type: 256x 90x 43.8 |

HLG-150H Series



| Model No. | Output | Tol. | R&N | Effi. |
|-----------------|--------------|-------|-------|-------|
| HLG-150H-12 A ○ | 12V, 0~12.5A | ±2.5% | 150mV | 91.5% |
| HLG-150H-15 A ○ | 15V, 0~10.0A | ±2.0% | 150mV | 92.0% |
| HLG-150H-20 A ○ | 20V, 0~7.50A | ±1.0% | 150mV | 93.0% |
| HLG-150H-24 A ○ | 24V, 0~6.30A | ±1.0% | 150mV | 93.0% |
| HLG-150H-30 A ○ | 30V, 0~5.00A | ±1.0% | 200mV | 93.5% |
| HLG-150H-36 A ○ | 36V, 0~4.20A | ±1.0% | 200mV | 93.5% |
| HLG-150H-42 A ○ | 42V, 0~3.60A | ±1.0% | 200mV | 94.0% |
| HLG-150H-48 A ○ | 48V, 0~3.20A | ±1.0% | 200mV | 94.0% |
| HLG-150H-54 A ○ | 54V, 0~2.80A | ±1.0% | 200mV | 94.0% |

○ = A, B, D or Blank

HLG-185H Series



| Model No. | Output | Tol. | R&N | Effi. |
|-------------------|--------------|-------|-------|-------|
| ★ HLG-185H-12 A ○ | 12V, 0~13.0A | ±2.5% | 150mV | 91.5% |
| HLG-185H-15 A ○ | 15V, 0~11.5A | ±2.0% | 150mV | 92.0% |
| HLG-185H-20 A ○ | 20V, 0~9.30A | ±1.0% | 150mV | 93.0% |
| ★ HLG-185H-24 A ○ | 24V, 0~7.80A | ±1.0% | 150mV | 93.5% |
| HLG-185H-30 A ○ | 30V, 0~6.20A | ±1.0% | 200mV | 93.5% |
| HLG-185H-36 A ○ | 36V, 0~5.20A | ±1.0% | 200mV | 93.5% |
| HLG-185H-42 A ○ | 42V, 0~4.40A | ±1.0% | 200mV | 94.0% |
| ★ HLG-185H-48 A ○ | 48V, 0~3.90A | ±1.0% | 200mV | 94.0% |
| HLG-185H-54 A ○ | 54V, 0~3.45A | ±1.0% | 200mV | 94.0% |

○ = A, B, D or Blank

HLG-240H Series



| Model No. | Output | Tol. | R&N | Effi. |
|-------------------|--------------|-------|-------|-------|
| ★ HLG-240H-12 A ○ | 12V, 0~16.0A | ±2.5% | 150mV | 90.0% |
| HLG-240H-15 A ○ | 15V, 0~15.0A | ±2.0% | 150mV | 90.0% |
| HLG-240H-20 A ○ | 20V, 0~12.0A | ±1.0% | 150mV | 92.0% |
| ★ HLG-240H-24 A ○ | 24V, 0~10.0A | ±1.0% | 150mV | 93.0% |
| HLG-240H-30 A ○ | 30V, 0~8.00A | ±1.0% | 200mV | 93.0% |
| HLG-240H-36 A ○ | 36V, 0~6.70A | ±1.0% | 250mV | 93.0% |
| HLG-240H-42 A ○ | 42V, 0~5.72A | ±1.0% | 250mV | 93.0% |
| ★ HLG-240H-48 A ○ | 48V, 0~5.00A | ±1.0% | 250mV | 93.5% |
| HLG-240H-54 A ○ | 54V, 0~4.45A | ±1.0% | 350mV | 94.0% |

○ = A, B, C, D or Blank

HLG-320H Series



| Model No. | Output | Tol. | R&N | Effi. |
|-----------------|---------------|-------|-------|-------|
| HLG-320H-12 A ○ | 12V, 0~22.0A | ±3.0% | 150mV | 91.0% |
| HLG-320H-15 A ○ | 15V, 0~19.0A | ±2.0% | 150mV | 92.5% |
| HLG-320H-20 A ○ | 20V, 0~15.0A | ±1.5% | 150mV | 93.5% |
| HLG-320H-24 A ○ | 24V, 0~13.34A | ±1.0% | 150mV | 94.0% |
| HLG-320H-30 A ○ | 30V, 0~10.7A | ±1.0% | 200mV | 94.0% |
| HLG-320H-36 A ○ | 36V, 0~8.90A | ±1.0% | 250mV | 94.5% |
| HLG-320H-42 A ○ | 42V, 0~7.65A | ±1.0% | 250mV | 95.0% |
| HLG-320H-48 A ○ | 48V, 0~6.70A | ±1.0% | 250mV | 95.0% |
| HLG-320H-54 A ○ | 54V, 0~5.95A | ±1.0% | 350mV | 95.0% |

○ = A, B, C, D or Blank

★ HLG-185H-12A/24A/48A & HLG-240H-12A/24A/48A are our popular models. We will keep sufficient stock for prompt delivery of high quantity orders.

HVG(C) series

96~150W Wide Input Range with PFC

Features

- Wide input range: 180~480VAC for HVG(C)-100
180~528VAC for HVG(C)-150
- Protections: Short circuit / Over voltage / Over temperature / Over current (HVG-100/150)
- Built-in active PFC
- High efficiency up to 91%
- IP67 / IP65 design
- Cooling by free air convection
- C.V. +C.C. mode design (HVG-100/150)
- Constant current design (HVGC-100/150)
- Output current adjustable through output cable or internal potentiometer

- Class 2 power unit / Pass LPS for HVG-100
- Suitable for dry, damp and wet location
- Suitable for LED lighting and street lighting applications
- Multiple models for choice:
 - A-Type:** IP65 rated. Output voltage and constant current level can be adjusted through internal potentiometer
 - B-Type:** IP67 rated and **built-in 3 in 1 dimming function** (0~10VDC, PWM signal, or resistance)
 - D-Type (option):** IP67 rated. Timer dimming function, contact MEAN WELL for details.
- 5 years warranty



| | | |
|--------------------------|---|---|
| AC input voltage range | 180~480VAC(single phase); 254~679VDC | 180~528VAC (single phase); 254~747VDC |
| AC inrush current (max.) | Cold start, 50A / 440VAC | Cold start, 55A / 480VAC |
| DC adjustment range | ±10% rated output voltage | |
| Current adjustment range | HVG-100/150: 55%~100% ; HVGC-100/150: 60%~100% | |
| Over current protection | Range | 95%~108% |
| | Type | Constant current limiting, recovers automatically after fault is removed |
| Over voltage protection | 110%~140% rated output voltage, shut down o/p voltage with auto-recovery or re-power on to recovery | |
| Withstand voltage | I/P-O/P: 3.75kVAC, I/P-FG: 1.88kVAC, O/P-FG: 0.5kVAC | |
| Working temperature | -40~+70°C (refer to output derating curve) | |
| Safety standards | HVG-100: UL8750 approved (HVG-150 pending) | |
| | HVGC-100: UL8750, TUV EN61347-1, EN61347-2-13 approved (HVGC-150 pending) | |
| EMC standards | EN55015, FCC part 15 class B, EN61000-3-2 class C, EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547 | |
| | Design refer to EN55015, FCC part 15 class B, EN61000-3-2 Class C, EN61000-3-3, EN61000-4-2,3,4,5,6,8,11, EN61547 | |
| Connection | Input | UL rated, STW 18AWGx3C (30cm) |
| | Output | A&D-Type: SVT 18AWGx2C (30cm) B-Type: SVT 18AWGx2C (30cm)+ UL2517 18AWGx2C (30cm) |
| Dimension (LxWxH)(mm) | 236x 68x 38.8 | 246x 68x 38.8 |

HVG-100 Series (C.V. +C.C. mode)



| Model No. | Output | Tol. | R&N | Effi. |
|----------------|--------------|-------|-------|-------|
| HVG-100-15 A ○ | 15V, 0~5.0A | ±2.0% | 150mV | 89.0% |
| HVG-100-20 A ○ | 20V, 0~4.8A | ±1.0% | 150mV | 90.0% |
| HVG-100-24 A ○ | 24V, 0~4.0A | ±1.0% | 150mV | 91.0% |
| HVG-100-30 A ○ | 30V, 0~3.2A | ±1.0% | 200mV | 91.0% |
| HVG-100-36 A ○ | 36V, 0~2.65A | ±1.0% | 200mV | 90.5% |
| HVG-100-42 A ○ | 42V, 0~2.28A | ±1.0% | 200mV | 90.5% |
| HVG-100-48 A ○ | 48V, 0~2.0A | ±1.0% | 200mV | 91.0% |
| HVG-100-54 A ○ | 54V, 0~1.77A | ±1.0% | 200mV | 91.0% |

○ = A, B or D

HVG-150 Series (C.V. +C.C. mode)



| Model No. | Output | Tol. | R&N | Effi. |
|----------------|--------------|-------|-------|-------|
| HVG-150-12 A ○ | 12V, 0~10A | ±2.5% | 150mV | 87% |
| HVG-150-15 A ○ | 15V, 0~10A | ±2.0% | 150mV | 88% |
| HVG-150-20 A ○ | 20V, 0~7.5A | ±1.0% | 150mV | 89% |
| HVG-150-24 A ○ | 24V, 0~6.25A | ±1.0% | 150mV | 90% |
| HVG-150-30 A ○ | 30V, 0~5A | ±1.0% | 200mV | 90% |
| HVG-150-36 A ○ | 36V, 0~4.17A | ±1.0% | 200mV | 90% |
| HVG-150-42 A ○ | 42V, 0~3.58A | ±1.0% | 200mV | 90% |
| HVG-150-48 A ○ | 48V, 0~3.13A | ±1.0% | 200mV | 90% |
| HVG-150-54 A ○ | 54V, 0~2.78A | ±1.0% | 200mV | 91% |

○ = A, B or D

HVGC-100 Series (C.C. mode)



| Model No. | Output | Io Tol. | R&N | Effi. |
|------------------|---------------|---------|------|-------|
| HVGC-100-350 A ○ | 3~285V, 350mA | ±5% | 1V | 91% |
| HVGC-100-700 A ○ | 3~142V, 700mA | ±5% | 0.5V | 91% |

○ = A, B or D

HVGC-150 Series (C.C. mode)



| Model No. | Output | Io Tol. | R&N | Effi. |
|-------------------|----------------|---------|-------|-------|
| HVGC-150-350 A ○ | 3~428V, 350mA | ±5% | 1.50V | 91% |
| HVGC-150-500 A ○ | 3~300V, 500mA | ±5% | 1.00V | 90% |
| HVGC-150-700 A ○ | 3~215V, 700mA | ±5% | 0.75V | 90% |
| HVGC-150-1050 A ○ | 3~143V, 1050mA | ±5% | 0.50V | 89% |
| HVGC-150-1400 A ○ | 3~107V, 1400mA | ±5% | 0.50V | 89% |

○ = A, B or D

HSG/ULP series

70~150W Single Output with PFC

70W Rectangular Metal Case



127.2x 90x 38.8 mm

- Universal AC input (up to 305VAC)
- Protections:
 - Short circuit / Over current / Over voltage / Over temperature
- Built-in active PFC
- OCP point adjustable through internal potentiometer
- IP65 design
- Cooling by free air convection
- Suitable for LED lighting and moving sign applications
- 3 years warranty

| | | |
|--------------------------|--|---------------------------------------|
| AC input voltage range | 90~305VAC; 127~431VDC | |
| Current adjustment range | 60%~100% rated output current adjustable by internal potentiometer | |
| Over current protection | 95%~108% constant current limiting | |
| Over voltage protection | 112%~140% rated output voltage | |
| Withstand voltage | I/P-O/P: 3.75kVAC, I/P-FG: 1.88kVAC, O/P-FG: 0.5kVAC | |
| Working temperature | -40~+70°C (refer to output derating curve) | |
| Safety standards | Design refer to EN61347-1, EN61347-2-13 | |
| EMC standards | EN55015, EN61000-3-2 class C, EN61000-3-3, EN61547, EN61000-4-2,3,4,5,6,8,11 | |
| Connection | Input | H05RN-F 1.5mm ² x2C (30cm) |
| | Output | H05RN-F 1.0mm ² x3C (30cm) |

| Model No. | Output | Tol. | R&N | Effi. |
|-----------|-------------|-------|-------|-------|
| HSG-70-12 | 12V, 0~5.0A | ±2.5% | 150mV | 88% |
| HSG-70-18 | 18V, 0~4.0A | ±2.0% | 200mV | 89% |
| HSG-70-24 | 24V, 0~3.0A | ±1.0% | 200mV | 89% |
| HSG-70-36 | 36V, 0~2.0A | ±1.0% | 200mV | 90% |
| HSG-70-48 | 48V, 0~1.5A | ±1.0% | 200mV | 90% |

150W U-Bracket Single Output with PFC



215x 67.4x 33 mm

- Universal AC input (up to 295VAC)
- Built-in active PFC function
- High efficiency up to 93%
- Protections:
 - Short circuit / Overload / Over voltage / Over temperature
- **Constant voltage design**
- Cooling by free air convection
- U-bracket low profile: 33mm
- 3 years warranty

| | |
|---------------------------|--|
| AC input voltage range | 90~295VAC; 127~417VDC |
| AC inrush current (max.) | Cold start, 65A at 230VAC |
| Overload protection | 130%~185% hiccup mode, auto-recovery |
| Over voltage protection | 110%~135% hiccup mode, auto-recovery |
| Setup, rise, hold up time | 2000ms, 100ms, 16ms at full load and 230VAC |
| Withstand voltage | I/P-O/P: 3.75kVAC, I/P-FG: 1.88kVAC, O/P-FG: 0.5kVAC |
| Working temperature | -30~+70°C (refer to output derating curve) |
| Safety standards | Design refer to UL8750, EN61347-1, EN61347-2-13 |
| EMC standards | EN55015, EN61000-3-2 class C, EN61000-3-3, EN61547, EN61000-4-2,3,4,5,6,8,11 |

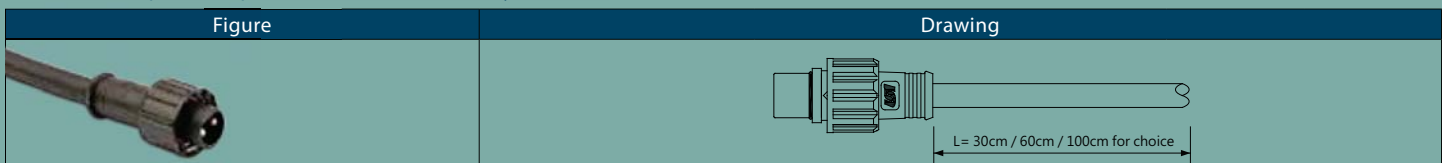
| Model No. | Output | Tol. | R&N | Effi. |
|------------|--------------|------|-------|-------|
| ULP-150-12 | 12V, 0~12.5A | ±2% | 100mV | 91.5% |
| ULP-150-15 | 15V, 0~10.0A | ±2% | 150mV | 91.5% |
| ULP-150-24 | 24V, 0~6.30A | ±2% | 150mV | 93.0% |
| ULP-150-36 | 36V, 0~4.20A | ±2% | 250mV | 93.0% |
| ULP-150-48 | 48V, 0~3.20A | ±2% | 250mV | 93.0% |

Female Waterproof Output Connector (Power supply side)

| Waterproof Connector | Pin Configuration (Female) | | | | | | | | |
|----------------------|----------------------------|----------------------------|-----|-----------------------------|-------|-----------------------------|-------|-----------------------------|-----------------------------|
| | M12 | | M15 | | M20.5 | | M20.8 | | |
| | | Order No. : M12-02 | | Order No. : M12-04 | | Order No. : M15-02 | | Order No. : M20.5-02 | Order No. : M20.8-02 |
| | | Suitable Current : 5A max. | | Suitable Current : 10A max. | | Suitable Current : 12A max. | | Suitable Current : 20A max. | Suitable Current : 20A max. |

- ▶ The output cable can be modified to include different waterproof connectors by MEAN WELL. Minimum order quantity may vary for different models.
- ▶ We would suggest you to order the configurations of "M15 connector with length of 20cm/ 30cm/ 45cm/ 60cm/ 80cm/ 100cm cables" due to its cost effectiveness and fast delivery. Ordering other connector type or cable lengths will have higher cost and longer lead-time.
- ▶ Suitable for CLG / HLG / HVG(C) / HSG / HLN / LPF series.

Male Waterproof Output Connector with Cable (System side)



- ▶ MEAN WELL offers male waterproof connectors with cable length of 30cm, 60cm, and 100cm as our standard mating accessories. These mating accessories need to be ordered together with PSU. For other length or cable style, the higher MOQ requirement and long lead-time will be expected. Please consult MEAN WELL for details.

Order No.

| | | | | | |
|-------------------------------|---------|---|---------|----------------------------------|------|
| M12-02M-30-U1-UN | | | | | |
| ① | ② | ③ | ④ | ⑤ | ⑥ |
| Connector Type: Male / Female | | No. of PIN | | Cable Length: Male with Cable | |
| M12 | M15 | M20.5 | M20.8 | 2P | 4P |
| UN & CH | UN & CH | UN only | CH only | 2pin | 4pin |
| | | M15, M20.5 and M20.8 only have 2-pin choice | | 30 60 100 | |
| | | | | 30cm 60cm 100cm | |
| | | | | Cable Length: Female with Cable | |
| | | | | 20 30 45 60 80 100 | |
| | | | | 20cm 30cm 45cm 60cm 80cm 100cm | |
| | | | | Cable Type | |
| | | | | U1 E1 | |
| | | | | SJTW (USA) H05RN-F (EURO) | |
| | | | | Brand Name | |
| | | | | UN CH | |
| | | | | UNICABLE CHOGORI | |
| | | | | (Made in Taiwan) (Made in China) | |

LDV series

185W Multiple Channel Output with PFC



LDV-185

NEW



► Features

- 180~295VAC input range
- 6CH/700mA or 12CH/350mA constant current output
- Built-in active PFC
- Protections: Short circuit / Over voltage / Over temp.
- Meet 4KV surge immunity level(EN61000-4-5)
- Cooling by free air convection
- IP67 design for indoor or outdoor installations
- Suitable for LED lighting and moving sign applications
- Multiple models for choice:
 - Blank-Type:** IP67 rated. No timer dimming function
 - D-Type(option):** IP67 rated. Timer dimming function, please contact MEAN WELL for details.
 - CA-Type(option):** IP67 rated. Including PSU mating accessory, please contact MEAN WELL for details.
- 3 years warranty

| | |
|-------------------------|---|
| AC input voltage range | 180~295VAC; 254~417VDC |
| AC inrush current | Cold start, 60A at 230VAC |
| Over voltage protection | A: 41~50V, B: 47~50V, C: 54~63V |
| Working temperature | -30~+70°C (refer to output derating curve) |
| Safety standards | Design refer to UL8750, EN61347-1, EN61347-2-13 |
| EMC standards | EN55015, EN61000-3-2 class C, EN61000-3-3, EN61547, EN61000-4-2,3,4,5,6,8,11 |
| Connection | Input: H05BN4-F 1.0mm ² x3C (30cm) |
| | Output: 6 CH: 22AWGx16C (15cm) with one connector 12CH: 22AWGx12C/16C (15cm) with two connectors |
| Dimension (LxWxH)(mm) | 222.2x 90x 38.8 |



| Model No. | Output | Channel | Io Tol. | Effi. | Max. |
|---------------------------------------|---------------|---------|---------|-------|------|
| LDV-185-350A <input type="checkbox"/> | 30~35V, 350mA | 12CH | ±5% | 88% | 147W |
| LDV-185-350B <input type="checkbox"/> | 35~40V, 350mA | | ±5% | 88% | 168W |
| LDV-185-350C <input type="checkbox"/> | 40~48V, 350mA | | ±5% | 88% | 185W |

| Model No. | Output | Channel | Io Tol. | Effi. | Max. |
|---------------------------------------|---------------|---------|---------|-------|------|
| LDV-185-700A <input type="checkbox"/> | 30~35V, 700mA | 6CH | ±5% | 88% | 147W |
| LDV-185-700B <input type="checkbox"/> | 35~40V, 700mA | | ±5% | 88% | 168W |
| LDV-185-700C <input type="checkbox"/> | 40~48V, 700mA | | ±5% | 88% | 185W |

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► To design a LED street lamp, what solution can MEAN WELL offer?

| HLG-185 Direct Drive | LDV-185 Multiple Channel C.C. Output | HLG-185+LDD AC/DC PSU+DC/DC Driver |
|---|---|---|
| | | |
| <ul style="list-style-type: none"> • Lowest price • Simplest design • Failure in any string will affect other strings • Unbalanced current in each string | <ul style="list-style-type: none"> • Built-in DC/DC driver ICs in LDV-185 • Each channel need to have the same LED quantity • Balanced current supply • Lower price | <ul style="list-style-type: none"> • Higher price • Independent C.C. output, balanced current in each string • Additional mounting space for LDD is required |

► Please refer to <http://www.meanwell.com/product/led/led.html> for more detail information.

LDD series / SPD-20

DC/DC Constant Current LED Driver / Surge Protection Device

► Features

- Constant current LED driver
- Wide input and output voltage range
- High efficiency up to 97%
- Comply with EN55015 and FCC part 15 without additional input filter and capacitors
- Built-in PWM dimming and remote ON/OFF control
- Protections: Short circuit / Over temperature
- Compact size
- Operating temperature range: -40~+85°C
- Cooling by free air convection
- Fully enclosed plastic case (UL 94V-0)
- Low cost, high reliability
- 3 years warranty



| | | | |
|------------------------------|---|---|---|
| Output Current Accuracy | ±3% at 24VDC input; ±4% at 48VDC input | | ±5% at 24VDC input |
| PWM Dimming & ON/OFF Control | Remote ON/OFF | Leave open if not used Power ON with dimming: DIM~Vin>2.5~6VDC or open circuit Power OFF: DIM~Vin <0.5VDC or short | Power ON with dimming: DIM~Vin>3.5~8VDC or open circuit Power OFF: DIM~Vin <0.5VDC or short |
| | PWM Frequency | 100~1KHz | |
| Short circuit | Range | Regulated at rated output current | |
| | Type | Can be continued, recovers automatically after fault condition is removed | |
| Over temp. protection | Range | Tj 150°C typically detect on main control IC | |
| | Type | Shut down, recovers automatically after temperature goes down | |
| Working temperature | -40~+85°C (refer to output derating curve) | | |
| EMC standards | Compliance to EN55015, FCC part 15 class B, EN61000-4-2,3,4,6,8, light industry level, criteria A | | |
| Operating case temp. (max.) | 100°C | | |
| Dimension (LxWxH)(mm) | 31.8x 20.3x 12.2 | | 22.6x 9.9x 8.9 |



| Model No. | Input (VDC) | Output | | Io Tol. | Effi. |
|------------------------------------|-------------|---------------|--------------|---------|-------|
| | | Voltage (VDC) | Current (mA) | | |
| LDD-300H <input type="checkbox"/> | 9~56 | 2~52 | 300 | ±4% | 97% |
| LDD-350H <input type="checkbox"/> | 9~56 | 2~52 | 350 | ±4% | 97% |
| LDD-500H <input type="checkbox"/> | 9~56 | 2~52 | 500 | ±4% | 97% |
| LDD-600H <input type="checkbox"/> | 9~56 | 2~52 | 600 | ±4% | 97% |
| LDD-700H <input type="checkbox"/> | 9~56 | 2~52 | 700 | ±4% | 97% |
| LDD-1000H <input type="checkbox"/> | 9~56 | 2~52 | 1000 | ±4% | 97% |

| Model No. | Input (VDC) | Output | | Io Tol. | Effi. |
|-----------------------------------|-------------|---------------|--------------|---------|-------|
| | | Voltage (VDC) | Current (mA) | | |
| LDD-300L <input type="checkbox"/> | 9~36 | 2~32 | 300 | ±5% | 95% |
| LDD-350L <input type="checkbox"/> | 9~36 | 2~32 | 350 | ±5% | 95% |
| LDD-500L <input type="checkbox"/> | 9~36 | 2~32 | 500 | ±5% | 95% |
| LDD-600L <input type="checkbox"/> | 9~36 | 2~32 | 600 | ±5% | 95% |
| LDD-700L <input type="checkbox"/> | 9~36 | 2~32 | 700 | ±5% | 95% |

= Blank, W ; Blank: pin style, W: wire style

= Blank, W ; Blank: pin style, W: wire style

20kA Surge Protection Device



► Features

- Type 2 component assemblies
- Line to Ground & Line to Line protected
- Design refer to UL1449 3rd Edition
- Parallel (3 wires) connection style
- LED status indicator
- IP67 design
- Suitable for surge protection of LED drivers

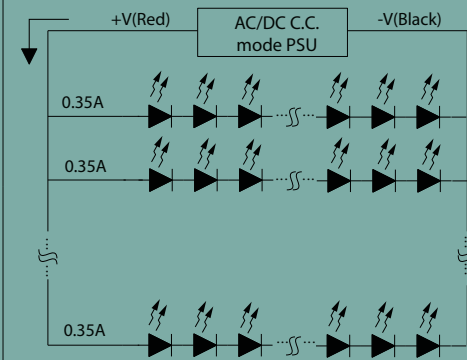
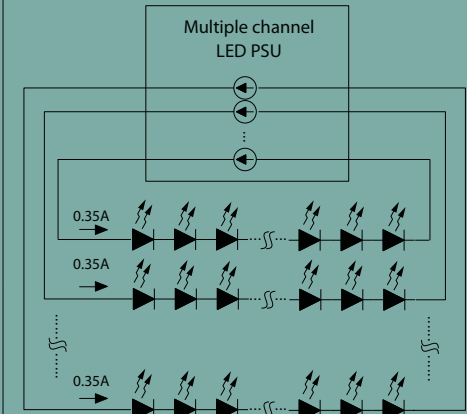
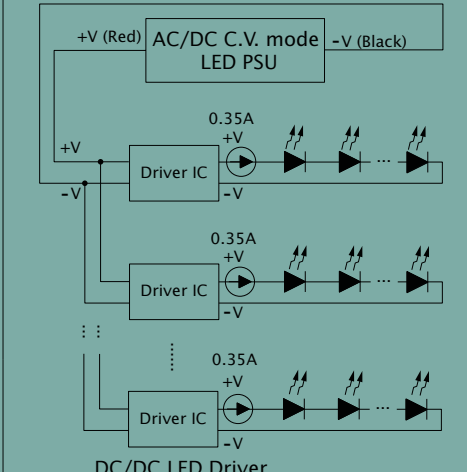
UL/TUV/CE pending

| | | |
|--|--|-----------------|
| Model No. | SPD-20-240P | SPD-20-277P |
| Operating voltage | 240VAC, 50/60Hz | 277VAC, 50/60Hz |
| MCOV (Max. Continuous Operating Voltage) | 300VAC | 320VAC |
| VPR (Voltage protection rating) | ≤1200 (L-FG, N-FG, L-N) | |
| IN (Nominal Discharge Current) | 5kA | |
| Max. Surge Current (8/20us) | 20kA | |
| SCCR (Short Circuit Current Rating) | 5kA | |
| Response time | <25ns | |
| Operating temperature | -40~+70°C | |
| Safety standard | Design refer to UL1449 3rd edition (Type 2 component assemblies), TUV EN61643-11 | |
| Dimension (LxWxH)(mm) | 90x 70x 50 | |

How to Choose A Suitable LED Power Supply?

- Decide a suitable wattage level, including safety margin.
- Verify your design of LED driving circuit: direct drive by PSU [choose a constant current (C.C.) mode LED power supply] or add additional driving IC to get a more precise constant current level [choose LDV-185 or LDD].
- Verify whether the application need PFC function.
- Verify location of assembly and the required level against dust and humidity for the LED power supply (enclosure style, IP level, dry/damp/wet location).
- Verify the required safety certificates.
- Need to adjust the output voltage and/or output current or need the dimming function ?

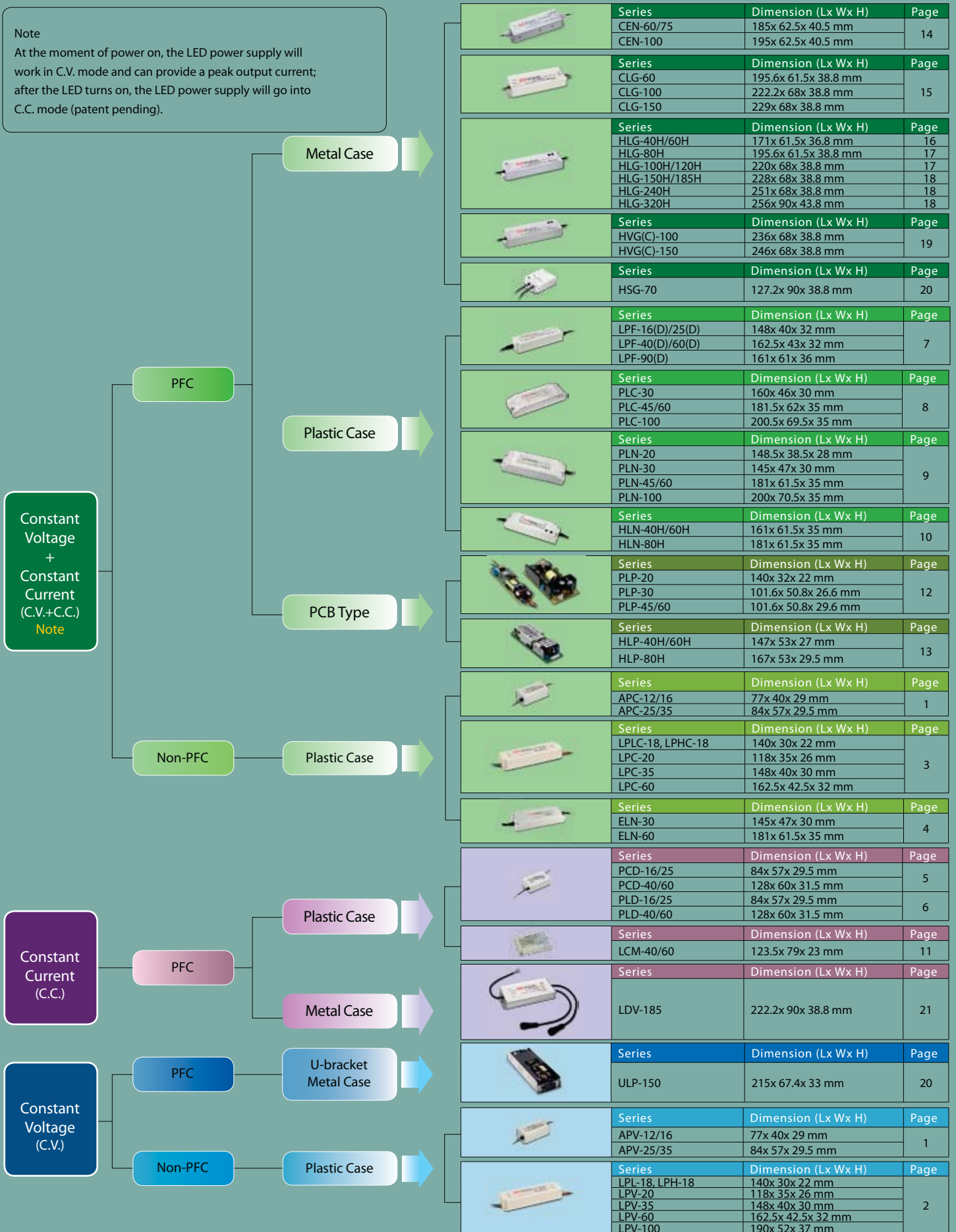
► Suggested System Design

| Setting | Circuit Diagram | Description | Advantage & Disadvantage |
|---|---|--|--|
| Use constant current (C.C.) mode power supply only |  | <p>Using MEAN WELL's C.C. mode LED power supply as constant current source and feed the LED arrays directly.</p> <p>MEAN WELL product: APC / LPC / ELN / PLN / PLC / LPF / HLN / PLD / CLG / CEN / HLG / HSG / HVG / HVGC / PLP / HLP / LCM families</p> | <p>Advantage</p> <ul style="list-style-type: none"> • Simplest design, no need LED driver IC • Lowest price • Highest efficiency with the best lumen per watt(lm/w) <p>Disadvantage</p> <ul style="list-style-type: none"> • Unbalanced driving current and shorter LED life time • LED chips should be sorted for similar VF |
| Use multiple channel C.C. mode power supply |  | <p>Using multiple channel LED PSU with DC/DC constant current LED driver ICs built-in. Each LED strip can get balanced driving current.</p> <p>MEAN WELL product: LDV-185 series</p> | <p>Advantage</p> <ul style="list-style-type: none"> • Built-in driver ICs in the unit • Moderate price <p>Disadvantage</p> <ul style="list-style-type: none"> • Each channel need to have the same LED quantity • Lower system efficiency comparing to the direct drive method |
| Use constant voltage (C.V.) mode power supply with DC-DC LED driver |  | <p>Using AC/DC C.V. mode LED power supply and separate DC/DC LED drivers.</p> <p>MEAN WELL product: LDD series</p> | <p>Advantage</p> <ul style="list-style-type: none"> • Independent output channels, the most balanced current for paralleled LED strips • No need to sort the VF of LED • Longer LED lifetime • Failures in any string do not affect the other strings <p>Disadvantage</p> <ul style="list-style-type: none"> • Higher price • Complicated circuit design • Lowest system efficiency • Largest in power supply volume |

Quick Selection Map

Note

At the moment of power on, the LED power supply will work in C.V. mode and can provide a peak output current; after the LED turns on, the LED power supply will go into C.C. mode (patent pending).



Comparison Chart

| Family | | PFC (Note 1) | | AC Input Range (VAC) | Potted | C.C. or C.V. | IP | Dimming (Note 2) | Vo / Io Adj | Max. Eff. | Warranty (years) | Remark |
|---|--------------------|--------------|-----------|--|------------------|--------------|-----------------|----------------------------------|-------------|-----------|------------------|---------------------------------------|
| Series Name | Type (Note 3) | Single Stage | Two Stage | | | | | | | | | |
| HLG-40H / 60H / 80H / 100H / 120H / 150H / 185H / 240H / 320H | A ★ | | ✓ | 90~305 | ✓ | C.V.+C.C. | 65 | 3 in 1 | ✓ | 95% | 5 | |
| | B | | | | | | 67 | | ✓ | | | |
| | C (240W/320W only) | | | | | | | | ✓ | | | |
| | Blank | | | | | | 67 | | | | | |
| | D (option) | | | | | | 67 | | Timer | | | |
| HVG(C)-100/150 | A ★ | | ✓ | 180~480 (528) | ✓ | C.V.+C.C. | 65 | 3 in 1 | ✓ | 91% | 5 | |
| | B | | | | | | 67 | | ✓ | | | |
| | D (option) | | | | | | 67 | | Timer | | | |
| HSG-70 | | | ✓ | 90~305 | ✓ | C.V.+C.C. | 65 | | Io | 90% | 3 | |
| CLG-150 | A ★ | | ✓ | 90~295 | ✓ | C.V.+C.C. | 65 | | ✓ | 91% | 3 | |
| | B | | | | | | 67 | | ✓ | | | |
| | C | | | | | | | | ✓ | | | |
| | Blank | | | | | | 67 | | | | | |
| CLG-100 | | | ✓ | 90~295 | ✓ | C.V.+C.C. | 67 | | | 88.5% | 3 | |
| CLG-60 | | ✓ | | 90~295 | ✓ | C.V.+C.C. | 67 | | | 89% | 3 | |
| CEN-60 / 75 / 100 | | ✓ | | 90~295 | | C.V.+C.C. | 66 | | ✓ | 91% | 3 | |
| LDV-185 | | | ✓ | 180~295 | ✓ | C.C. | 67 | Timer (D-Type) | | 88% | 3 | Multiple channel C.C. output |
| ULP-150 | | | ✓ | 90~295 | ✓ (half) | C.V. | | | Vo | 93% | 3 | U-bracket |
| HLN-40H / 60H / 80H | A | | ✓ | 90~305 | | C.V.+C.C. | 64 | 3 in 1 | ✓ | 91% | 3 | |
| | B | | | | | | | | | | | |
| LPF-16 □ / 25 □ / 40 □ / 60 □ / 90 □ | D | | ✓ | 90~305 | ✓ | C.V.+C.C. | 67 (16W option) | 3 in 1 | | 90.5% | 3 | |
| | Blank | | | | | | | | | | | |
| PLN-100 | | | ✓ | 90~295 | | C.V.+C.C. | 64 | | ✓ | 90% | 2 | |
| PLN-30 / 45 / 60 | | ✓ | | 90~295 | | C.V.+C.C. | 64 | | ✓ | 89% | 2 | |
| PLN-20 | | ✓ | | 90~277 | | C.V.+C.C. | 64 | | Io | 83.5% | 2 | |
| PLC-100 | | | ✓ | 90~264 | | C.V.+C.C. | | | ✓ | 90% | 2 | Terminal block I/O |
| PLC-30 / 45 / 60 | | ✓ | | 90~264 | | C.V.+C.C. | | | ✓ | 89% | 2 | Terminal block I/O |
| PCD-16 / 25 / 40 / 60 | | ✓ | | A: 90~135 B: 180~295 | ✓ (half) | C.C. | 30 | AC Phase-Cut | | 87% | 3 | |
| PLD-16 / 25 / 40 / 60 | | ✓ | | 16/40/60W: A-90~135 B-180~295 25W: 90~295 | ✓ (half) | C.C. | 30 | | | 88% | 3 | |
| LCM-40 / 60 | | | ✓ | 180~295 | | C.C. | 20 | 0~10Vdc & PWM DALI & push DIM | | 90% | 3 | Io level selectable in one power unit |
| LCM-40DA / 60DA | | | | | | | | | | | | |
| PLP-20 / 30 / 45 / 60 | | ✓ | | 20W: 90~277 30~60W:90~264 | | C.V.+C.C. | | | Io | 89% | 2 | PCB type |
| HLP-40H / 60H / 80H | | | ✓ | 90~305 | | C.V.+C.C. | | 3 in 1 | ✓ | 90.5% | 3 | PCB type |
| ELN-30 / 60 | | | | 90~264 | | C.V.+C.C. | 64 | 1~10Vdc or PWM | ✓ | 88% | 2 | |
| LPH / LPL-18 LPV-20 / 35 / 60 / 100 | | | | LPH: 180~264 LPL: 90~132 LPV: 90~264 | ✓ | C.V. | 67 | | | 89% | 2 | |
| LPHC / LPLC-18 LPC-20 / 35 / 60 | | | | LPHC: 180~264 LPLC: 90~132 LPC: 90~264 | ✓ | C.V.+C.C. | 67 | | | 87% | 2 | |
| APC-12 / 16 / 25 / 35 | | | | 90~264 | ✓ (16W/35W half) | C.V.+C.C. | 30 | | | 84% | 2 | |
| APV-12 / 16 / 25 / 35 | | | | 90~264 | ✓ (16W/35W half) | C.V. | 30 | | | 84% | 2 | |

Note 1 ★Single-Stage PFC : No hold-up time and higher Ripple & Noise. Not to use in regions with unstable utility status is highly recommended.

(For C.V. mode operation, please refer to the application Q&A on MEANWELL LED website.)

•Two-Stage PFC : Longer hold-up time and lower Ripple & Noise. Suitable for LED lighting and general industrial applications.

•Non-PFC : PF<0.6 and target at regions where PF compliance does not required.

Note 2 3-in-1 dimming: 1~10Vdc, PWM signal, or resistance. Timer: Timmer dimming function, please contact MEANWELL for details.

Note 3 ★ are popular models and will have sufficient stock for prompt delivery of high quantity orders.



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